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IN THE

Supreme Court of the United States

OCTOBER TERM, 1997

HEWLETT-PACKARD COMPANY,

Petitioner,

—v.—

REPEAT-O-TYPE STENCIL MANUFACTURING CORPORATION, INC. AND FRED KEEN,

Respondents.

ON PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

PETITION FOR WRIT OF CERTIORARI

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101 pp

QUESTIONS PRESENTED

Under this Court's precedent noninfringing "repair" is defined as maintaining the use of a patented combination by replacing a spent, unpatented element. Petitioner Hewlett-Packard makes and sells nonrefillable inkjet print cartridges covered by its patents. Respondent ROT converts brand-new Hewlett-Packard inkjet cartridges into refillable cartridges — still covered by the patents, but having different features, function, and performance from the original devices. The court of appeals held that the basis of district court's decision — claim construction — was erroneous, but nevertheless held that ROT's conduct, although not repair, was "kin to repair." These circumstances give rise to the first question presented:

1. Did the court of appeals err in holding, contrary to this Court's precedent, that the patent law doctrine of "repair" extends to creating, from a brand-new patented device, a fundamentally different device than that intended by the patent holder and bargained for by a purchaser?

One Hewlett-Packard patent in issue contains separate apparatus claims and process claims. The apparatus claims cover the structures of inkjet cartridges, while the process claims cover manufacturing processes for filling cartridges with ink. These processes are not needed to use the nonrefillable cartridges. The Federal Circuit held that buyers of Hewlett-Packard cartridges covered by the apparatus claims also obtained an implied license to practice the separate process claims. These circumstances give rise to the second question presented:

2. Did the court of appeals err in holding, contrary to this Court's precedent and in conflict with other circuits, that when a device covered by a patent's apparatus claims is sold, an implied license is conveyed to that patent's separate claims to processes that are not necessary to use the device?

CORPORATE LISTING UNDER RULE 29.6

Hewlett-Packard Company has no parent companies and there are no subsidiaries or affiliates of Hewlett-Packard Company that have issued shares to the public.

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PETITION FOR WRIT OF CERTIORARI

Hewlett-Packard Company hereby petitions this Court to review the judgment of the United States Court of Appeals for the Federal Circuit in this case. Despite there being no basis for the district court's holding other than its claim construction — which the court of appeals properly held was erroneous — the Federal Circuit did not vacate and remand the district-court judgment. Instead, the Federal Circuit engaged in its own analysis that, aside from improperly making factual findings in the first instance, is contrary to this Court's precedent in two important respects. First, the Federal Circuit has expanded the concept of noninfringing "repair" to include modifications that

convert a brand-new, unused patented device that needs no repair into a completely different device than the patent holder and the purchaser bargained for. In so doing, the court of appeals has overextended this Court's decisions in *Aro Manufacturing Co. v. Convertible Top Replacement Co.*, 365 U.S. 336 (1961) ["*Aro I*"], *Wilbur-Ellis Co. v. Kuther*, 377 U.S. 422 (1964), and *Wilson v. Simpson*, 50 U.S. (9 How.) 109 (1850), and as a result narrows patent holders' fundamental rights granted by the Constitution and Congress. The Federal Circuit's decision also creates a great deal of uncertainty in this area of patent law when viewed with conflicting precedent in that and other circuits. This Court, not having had occasion to rule on the matters since the early 1960s when *Aro I* and *Wilbur-Ellis* were decided, should therefore grant the petition in order to enunciate clear standards regarding permissible repair and impermissible reconstruction. Second, the Federal Circuit has broadened the scope of the implied license that a purchaser of a patented device obtains to include not only apparatus claims that cover the device, but also separate process claims that cover processes that the purchaser does not need to practice in using the device. That holding is contrary to this Court's decision in *Leeds & Catlin Co. v. Victor Talking Machine Co.*, 213 U.S. 301, 319 (1909) ["*Leeds & Catlin I*"]. That holding also conflicts with decisions of the Court of Claims — one of the Federal Circuit's predecessors — and the Fifth, Seventh, Eighth, and Tenth Circuits. Because innumerable patents include both apparatus and process claims, this Court should grant the petition to correct the Federal Circuit's error and resolve the conflict between the circuits.

OPINIONS BELOW

The opinion of the United States Court of Appeals for the Federal Circuit in this case is reported at 123 F.3d 1445, 43 U.S.P.Q.2d 1650, and is reprinted at Appendix A. The opinion

of the district court is reported at 34 U.S.P.Q.2d 1450 and is reprinted at Appendix D.

JURISDICTION

The judgment of the United States Court of Appeals for the Federal Circuit was entered on August 12, 1997. (Appendix B.) Petitioner Hewlett-Packard timely filed a petition for rehearing and suggestion for rehearing *in banc*, which was denied on October 14, 1997. (Appendix C.) When respondents ROT and Keen filed petitions in the United States Bankruptcy Court for the District of New Jersey on November 4, 1997, under 11 U.S.C. § 362(a)(1) an automatic stay of the continuation of judicial actions against ROT took effect. Because Hewlett-Packard's appeal of the Federal Circuit's ruling by way of petition to this Court constitutes the continuation of a judicial action against a debtor, the appeal was stayed by operation of § 362(a) of the Bankruptcy Code. *See Koolik v. Markowitz*, 40 F.3d 567, 568 (2d Cir. 1994); *Farley v. Hensen*, 2 F.3d 273, 275 (8th Cir. 1993); *Teacher's Ins. & Annuity Ass'n of Am. v. Butler*, 803 F.2d 61, 64-65 (2d Cir. 1986), *appeal dismissed*, 816 F.2d 670 (2d Cir. 1987); *Cathey v. Johns-Manville Sales Corp.*, 711 F.2d 60, 60-61 (6th Cir. 1983); *Association of St. Croix Condominium Owners v. St. Croix Hotel*, 682 F.2d 446, 449 (3d Cir. 1982); *see also* S. Ct. R. 13 (petition due within 90 days of judgment "[u]nless otherwise provided by law"). Therefore, Hewlett-Packard could not file this petition while the stay was in effect.

On Hewlett-Packard's motion, the bankruptcy court ordered that the stay would be lifted effective January 22, 1998. (The bankruptcy court's orders and an explanatory letter from Hewlett-Packard's counsel to the bankruptcy court are included in Appendices F and G.) The jurisdiction of this Court to review the judgment of the court of appeals is invoked under 28 U.S.C. § 1254(1).

STATUTORY PROVISION INVOLVED

35 U.S.C. § 271 provides in pertinent part:

(a) Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

(b) Whoever actively induces infringement of a patent shall be liable as an infringer.

(c) Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, . . . shall be liable as a contributory infringer.

STATEMENT OF THE CASE

This case concerns patents on Hewlett-Packard's pioneering thermal inkjet technology, a hugely successful advance over prior printing technologies. Although it did not even exist on the market 15 years ago, thermal inkjet technology has since become ubiquitous, making high-quality printing — particularly color printing — affordable to millions of people.

A crucial aspect of the development of Hewlett-Packard's inkjet technology was the creation of self-contained, nonrefillable inkjet print cartridges — a radical departure from previous designs. Prior inkjet systems used expensive "plumbing" to deliver continuous streams of ink to piezoelectric printheads. These older systems were costly and unsuccessful commercially because they were unreliable, messy to operate,

and often required expensive service calls to fix leaks and clogs in the system.

To avoid the costs, complexity, and reliability problems associated with these prior systems, Hewlett-Packard developed a system that would (1) transfer droplets of ink on demand, rather than using a continuous, recirculating supply, and (2) use a disposable, unitary system that included a thermal printhead, an ink-delivery system, and ink, thus eliminating the use of complicated and unreliable hoses, plumbing, valves, pumps, and ink reservoirs. Hewlett-Packard's nonrefillable inkjet cartridges — also called inkjet pens — are embodiments of those drop-on-demand and unitary-system concepts. Hewlett-Packard's inkjet cartridges employ electrical-, mechanical-, and chemical-engineering principles that Hewlett-Packard spent considerable financial and human capital over many years to create, develop, and improve.

The 12 Hewlett-Packard patents in this case protect various aspects of the structures, processes, and ink formulations that resulted from Hewlett-Packard's research and development. This patented technology is embodied in the two nonrefillable inkjet cartridges at issue: the HP 51625A (known internally at Hewlett-Packard as the "Kukla" cartridge) and the HP 51608A (known internally at Hewlett-Packard as the "Stanley" cartridge). The Kukla cartridge, designed for color printing, contains three reservoirs that hold inks corresponding to the three primary subtractive colors. (A7.) The printhead has 48 inkjet nozzles. (CA Jt. App. 2182.) Each nozzle is associated with one thermal resistor and has a diameter on the order of 43 microns — much less than the diameter of a human hair. (*Id.*) The Stanley cartridge has a single reservoir and is sold by HP with black ink only. (A7.) The Stanley cartridge contains 50 nozzles, each having a diameter of approximately 50 microns. (CA Jt. App. 2182.) Like Kukla, Stanley has one thermal resistor associated with each nozzle. (*Id.*)

During the inkjet printing process, electrical energy is provided to selected thermal resistors in the printhead, causing them to heat. (A3.) As a result, the ink delivered to the resistors boils and forms a vapor, which causes nearby ink droplets to be propelled out of the cartridge and onto the paper or other medium. (*Id.*) The thermal resistors of the Kukla and Stanley cartridges can be fired up to 5000 times *per second*, allowing the printheads to generate up to 250,000 nozzle firings — i.e., ink droplets — *per second*. (CA Jt. App. 2182.) The resistors have a limited life because of wear resulting from the numerous, rapid changes in temperature and pressure associated with boiling and vaporizing the ink. (CA Jt. App. 2182; 1500.) Additionally, as it is boiled, the ink leaves deposits on the tiny resistors and their associated nozzles that build up to the point where one or more resistors become incapable of boiling ink, or the nozzles become clogged, and the print quality is diminished or the pen ceases to function entirely. (CA Jt. App. 2182-83; 1500-01.)

Because the Kukla and Stanley cartridges necessarily would have a limited life, Hewlett-Packard engineered them to minimize the probability that any component would fail before delivering the ink contained in a cartridge. (CA Jt. App. 2182-83.) Hewlett-Packard intended that the shortest-lived part, and therefore the measure of the intended life of the cartridge, would be the cartridge's supply of ink. (CA Jt. App. 2182-83; 1500-01.) This design limits the possibility that the resistors or other components will wear out or that the nozzles will clog before the ink supply is exhausted, thus reliably achieving consistent, high-quality printing for the intended life of the cartridge.

Respondent ROT (of which respondent Fred Keen is the president and majority stockholder) purchases patented Hewlett-Packard nonrefillable inkjet cartridges and converts them to ink-refillable cartridges that have features, function, and

performance different from the cartridges as sold by Hewlett-Packard.

Specifically, the raw material for ROT's first product is a brand-new, unused Kukla cartridge. (CA Jt. App. 1881.) ROT starts its modification of this tricolor cartridge by physically breaking the cap off the rest of the cartridge housing. (CA Jt. App. 1436.) ROT initially broke off the cap by placing Hewlett-Packard's cartridges in a vise. (CA Jt. App. 1481.) ROT later advanced to removing the cap by placing the cartridge in a solvent bath that dissolves the ultrasonic weld between the cap and the cartridge. (*Id.*)

After removal, ROT adds to the inside of the cap "shims" that allow the cap to be removably reattached onto the housing. (CA Jt. App. 392; 1224.) By removing the cap of an ROT-modified Kukla cartridge, a user can add ink to any of the three ink reservoirs by injecting it into openings in the reservoirs that ROT makes accessible. (CA Jt. App. 1882; 2286-87.)

ROT acknowledges that its alterations of the Kukla cartridge are significant acts. For example, the alterations destroy the weld joining the cap to the rest of the housing; this destroys an air channel that permits a small amount of air to enter the cartridge through the weld joint to replace the ink as it is used up, so that the cartridge's operation is properly maintained. (CA Jt. App. 2181.) The air channel formed by the Kukla cartridge's original cap weld was also designed to limit evaporation of ink ingredients from the reservoir over the life of the cartridge, since evaporation can change ink viscosity and cause degraded print quality or premature cartridge failure. (CA Jt. App. 133-34; 140-41.) But ROT's alterations destroy the limited-evaporation design of the original weld. (CA Jt. App. 133-34.) ROT's modifications also destroy the integrity of the original cartridge, which can cause ink leakage.

The second ROT product is derived from Hewlett-Packard's Stanley black-ink cartridge. (CA Jt. App. 2286-87.) Here, ROT starts with a brand-new, unused Hewlett-Packard cartridge (*id.*) from which it first forces out the black ink, then rinses the ink chamber several times to remove all traces of the *original ink*, and, finally, fills the cartridge with an ink manufactured by ROT that is a different color than the original ink. (CA Jt. App. 1296-99.)

ROT uses a clothes washer as a centrifuge to expel the Hewlett-Packard ink from the foam reservoir in the cartridge through an air portal in the cap. (CA Jt. App. 1296-97.) ROT then fills the cartridge with rinse water, which is also removed by centrifuging. This process is repeated two to four times. (CA Jt. App. 1296-99.) Ultimately, ROT fills the cartridge with one of five different colors of ROT ink. (CA Jt. App. 1296-99; 1960.)

ROT recognizes that its modifications of brand-new cartridges resulted in devices having different features, function, and performance from the nonrefillable cartridges that Hewlett-Packard sold. Significantly, ROT has characterized a Hewlett-Packard inkjet cartridge that has run out of ink as "a useless piece of garbage" (CA Jt. App. 877), while describing its conversions of unused, disposable, nonrefillable Hewlett-Packard cartridges as making "semi-permanent refillable printer component[s]" (*id.*).

Moreover, ROT admitted that Hewlett-Packard does not manufacture and sell refillable cartridges; that Hewlett-Packard's reputation for not modifying cartridges to allow refills is well-known; that consumers who purchase Kukla and Stanley cartridges do not expect to modify those cartridges; and that a supposed shortcoming in Hewlett-Packard's design is the "necessity to throw away the . . . cartridge every time it runs out of a single color of ink." (CA Jt. App. 1881; 1839-40;

1636.) ROT also conceded that it has made refillable cartridges, whereas Hewlett-Packard's are neither refillable nor intended to be refilled. (CA Jt. App. 1476-77.) ROT even insisted that its modifications were innovative and that its efforts in developing a refillable cartridge were successful and a "breakthrough." (CA Jt. App. 208; 1764.) Indeed, ROT has obtained a patent covering its method of modifying the Kukla cartridge and the refillable cartridge resulting from those modifications (CA Jt. App. 1896-1904), indicating that ROT believed that its refillable inkjet cartridge product was "novel" and "nonobvious." *See* 35 U.S.C. §§ 102, 103 (statutes requiring that invention be novel and nonobvious to receive protection).

In its motion for summary judgment of noninfringement of all 12 Hewlett-Packard patents, ROT asserted an affirmative defense: because it purchased the cartridges from Hewlett-Packard, ROT's conduct in modifying brand-new, unused, patented cartridges was impliedly licensed. Specifically, ROT argued that its conduct was authorized under 35 U.S.C. § 271(a) either because Hewlett-Packard's patent rights were "exhausted" when it sold its cartridges, or because ROT's conduct was permissible "repair."[1]

Hewlett-Packard opposed ROT's summary-judgment motion on the basis that ROT's affirmative defense failed as a matter of law, arguing that ROT's conduct was infringing reconstruction. Hewlett-Packard also cross-moved for summary judgment of infringement of two of its patents — U.S. patent No. 4,827,294 (the "'294 patent") and U.S. patent No. 4,931,811 (the "'811 patent") — on the same basis.

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[1] For one Hewlett-Packard patent — U.S. patent No. 5,108,503 (the "'503 patent"), which covers ink formulations — ROT also argued that its inks were not covered by the patent.

The district court's opinion[2] discussed only the '294 patent and the '811 patent. In fact, the district court never made any mention, much less analysis, of the other ten Hewlett-Packard patents in suit.

What the district court did undertake, albeit incorrectly, was the construction of the '294 and '811 patents. In particular, claim 3 of the '294 patent and claim 2 of the '811 patent both clearly recite an "ink jet pen including" certain elements. (A4, A5.) Nevertheless, the district court construed the '294 and '811 patents as covering not entire inkjet cartridges, but only components of those cartridges:

> In the instant case, Hewlett-Packard does not have a combination patent on its Stanley and Kukla cartridges — only on certain elements of the cartridges. Thus, by changing certain nonpatented elements of the cartridges, Repeat-O-Type is not making or remaking anything that Hewlett-Packard has a patent on.
>
> . . . .
>
> It is important to note that Hewlett-Packard's patents are not for the Stanley and Kukla cartridges themselves; they are for certain elements which are *in* the cartridges.

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[2] The district court's decision discusses both Hewlett-Packard's trademark infringement and patent infringement claims. Hewlett-Packard was granted summary judgment on the trademark claims, confirming the temporary restraining order and preliminary injunction that had been entered earlier in this case as remedies for ROT's use of Hewlett-Packard's logos on ROT's products and ROT's packaging its products in Hewlett-Packard boxes. (D9, D10.) Pending a trial for damages on the trademark infringement claims, a Rule 54(b) judgment was entered on the patent infringement claims (Appendix E), so only those claims were before the court of appeals. Discussion of the district court's opinion in the rest of this petition is limited to its rulings on the patent infringement claims.

(D12-13 (original emphasis).)

Indeed, it was *solely* on the basis of its flawed claim construction that the district court found that ROT's conduct was noninfringing. First, regarding the '811 patent and ROT's modifications to the Stanley black-ink cartridge, the district court's holding was based explicitly on its mistaken notion of what Hewlett-Packard's patent covered:

> Contrary to Hewlett-Packard's assertion, . . . replacing the ink in the ink reservoir does not constitute infringement, because *ink is not a patented/material element* of claim 2 [of the '811 patent], and *Hewlett-Packard does not have a combination patent on the cartridge itself.*

(D13.[3])

Similarly, the district court's incorrect claim construction was the *only basis* for its ruling regarding the '294 patent and ROT's alterations to the Kukla tricolor cartridge:

> [E]ven if various components of the cartridges are covered by the '294 patent, *the cap is not a patented element* of claim 3. Thus, Repeat-O-Type's breaking the seal of the cap and replacing the cap with shims so that the cap could be removed and the cartridge refilled by the consumer, does not constitute impermissible "reconstruction."

(D14.)

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[3] Emphasis appearing in this petition has been added unless otherwise specified.

On appeal, the Federal Circuit "agree[d] with HP that the [district] court misconstrued the claims. They relate to ink jet cartridges, not to specific components within the cartridges." (A11-12.) The Federal Circuit thus held that the district court's claim construction was erroneous and that Hewlett-Packard's '294 and '811 patents do in fact cover the Stanley and Kukla cartridges themselves.

Even though the district court's conclusion — that none of the *12* Hewlett-Packard patents in suit was infringed — was based solely upon its erroneous construction of *just two* Hewlett-Packard patents, the Federal Circuit nevertheless refused to vacate and remand the district-court judgment. Instead, the court of appeals — making its own analysis in the first instance with the properly construed claims of those two patents — concluded that ROT's conduct was noninfringing repair. Specifically, while it assumed that ROT's conduct constituted a making of the patented inventions (A12), the Federal Circuit — citing this Court's decision in *Wilbur-Ellis* — held that ROT's conduct in converting brand-new, nonrefillable inkjet cartridges into refillable ones, although not "conventional repair," was "kin to repair." (A15-16.)

Moreover, the Federal Circuit forgave the district court's failure to make findings regarding the other ten patents in suit. For example, one of Hewlett-Packard's patents — U.S. patent No. 4,771,295 (the "'295 patent") — contains both apparatus claims and process claims. The apparatus claims recite an inkjet cartridge having foam as an ink-storage medium. (Claims 4-11, CA Jt. App. 1011-12.) The process claims include the steps of "storing," "providing," and "fill[ing]" a foam-based cartridge with ink. (Claims 1-3, CA Jt. App. 1011.) While the process claims cover steps taken when Hewlett-Packard manufactures its foam-based Kukla and Stanley cartridges, it is *not necessary* for a purchaser of either of those cartridges to practice the claimed processes.

The district court neither considered whether the process claims cover "use" of the cartridges nor construed any of the claims of the '295 patent. Indeed, the district court never even mentioned the '295 patent in its opinion. This is hardly surprising since the issue was never raised before the district court. Nevertheless, the Federal Circuit found, without a scintilla of evidence in the record, that "[u]nauthorized use of the cartridges covered by the apparatus claims would *necessarily* infringe the asserted process claims." (A20.) And, citing this Court's decision in *United States v. Univis Lens Co.*, 316 U.S. 241, 249 (1942), the Federal Circuit held that a license was impliedly granted under the '295 patent's process claims merely because the '295 patent also happened to contain separate apparatus claims that covered Hewlett-Packard's cartridges.

REASONS FOR GRANTING THE PETITION

I. THE FEDERAL CIRCUIT'S DECISION THAT THE CONDUCT AT ISSUE IS IMPLIEDLY LICENSED AS "REPAIR" IS CONTRARY TO THIS COURT'S PRECEDENT AND CREATES UNCERTAINTY IN THIS AREA OF PATENT LAW

Under the patent law, anyone who makes, uses, or sells a patented invention is an infringer. *See* 35 U.S.C. § 271(a). Because the literal language of the statute would cover even one who used a device purchased from the patent holder, the courts have long recognized that the sale of a patented device carries with it an implied license to use that device. *See Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 484 (1964) ["*Aro II*"]; *Adams v. Burke*, 84 U.S. (17 Wall.) 453, 456 (1873). But until the Federal Circuit's decision here, no court has ever held that the purchaser's implied license includes unlimited rights to modify the device so as to make something fundamentally different — but still covered by the patent — and then to sell the new device despite the patent holder's exclusive

rights to make and sell the patented invention. *See* U.S. Const. art. I, §8, ch. 8 (Congress has power to secure to inventors exclusive right to their discoveries); 35 U.S.C. § 154(a)(1) (patentee is granted exclusive rights).

Instead, this Court has recognized as part of the scope of the purchaser's implied license only a limited right of repair. The Court's decisions concerning repair over nearly 150 years have not been numerous but they have been consistent. This Court has found conduct to be repair when it consisted of replacing worn or spent parts of a device that were expected to be replaced during the much-longer useful life of the overall device. *See Aro I*, 365 U.S. at 346; *Wilson*, 50 U.S. (9 How.) at 123; *see also Leeds & Catlin Co. v. Victor Talking Mach. Co.*, 213 U.S. 325, 326 (1909) ["*Leeds & Catlin II*"].

For example, the allegedly infringing devices in this Court's seminal decision in *Wilson* were wood-planing machines whose useful life was several years but which included knives that wore out and needed to be replaced at least every sixty or ninety days. *Wilson*, 50 U.S. (9 How.) at 125. This Court explained that the nature of the patented wood-planing machine — having parts that needed to be replaced — and the fact that the inventor intended that parts be replaced, indicated that replacing worn-out knives was permissible:

> *If*, then, *the use of a machine depends upon the replacement of the knives*, and the assignee could replace them from time to time, as they were needed . . . frequently replacing them, *according to the intention of the inventor*, is not a reconstruction of the invention, but the use only of so much of it as is absolutely necessary to identify the machine with what it was in the beginning of its use, or before the part of it had been worn out.

Id. at 125; *see also id.* at 124-25 (repeated replacement of knives on patented machine was permissible repair where machine had long life and patentee intended that knife blades, which wore out quickly, would be frequently replaced); *Leeds & Catlin II*, 213 U.S. at 336 ("The license granted to a purchaser of a patented combination is to preserve its fitness for use so far as it may be affected by wear or breakage. Beyond this there is no license.").

Here, however, use of Hewlett-Packard's nonrefillable inkjet cartridges does not depend upon replacing ink or any other part and, according to the intention of Hewlett-Packard, no part of its inkjet cartridges need be replaced. Hewlett-Packard's cartridges are not designed or intended for use beyond the ink supplied because after the ink is exhausted they cannot reliably provide consistent, high-quality printing.

Similarly, in *Aro I*, the patented combination covered a convertible folding top for automobiles, including a flexible top fabric, supporting structures, and a sealing mechanism. *Aro I*, 365 U.S. at 337. Other than the fabric, the normal useful life for the components of the patented combination was the life of the car, while the fabric had a much shorter life, usually about three years. *Id.* at 337-38. These facts were key to this Court's holding that selling replacement fabrics for the patented folding top was noninfringing repair:

> [M]aintenance of the "use of the whole" of a patented combination through replacement of a spent, unpatented element does not constitute reconstruction.
>
> . . . Mere replacement of individual unpatented parts, one at a time, whether of the same part repeatedly or different parts successively, is no more than the lawful right of the owner to repair his property.

Aro I, 365 U.S. at 346.

But ROT's conduct is not maintenance of the use of the whole of Hewlett-Packard's patented inkjet cartridges. ROT modifies brand-new, unused Hewlett-Packard cartridges; no maintenance is needed to use them. Moreover, Hewlett-Packard's nonrefillable cartridges are designed for a single use; the cartridges are not designed to be used beyond each cartridge's ink supply. Because ROT's modifications allow users to attempt to refill Hewlett-Packard's nonrefillable cartridges, ROT's conduct is contrary to the intended use of Hewlett-Packard's cartridges and therefore cannot possibly constitute maintenance of the use of the whole of the cartridges.

Until its decision in this case, the Federal Circuit also consistently held that conduct was "repair" where the part replaced was worn or spent and intended to be replaced because it had a much shorter life than that of the overall device.[4] But the Federal Circuit has now departed from this Court's precedent, ruling that modifications to brand-new, unused Hewlett-Packard inkjet cartridges — which include no part that is designed or intended to be replaced — is permissible repair. That holding is at worst irreconcilable with this Court's decisions, and at best an unwarranted, untenable extension of the concept of repair that robs patent holders of basic rights granted by the Constitution and the patent law.

The doctrine of repair provides the purchaser of a patented device with a limited right as part of the purchaser's implied

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[4] *See Sage Prods., Inc. v. Devon Indus., Inc.*, 45 F.3d 1575, 1578 (Fed. Cir. 1995); *FMC Corp. v. Up-Right, Inc.*, 21 F.3d 1073, 1077 (Fed. Cir. 1994); *Everpure, Inc. v. Cuno, Inc.*, 875 F.2d 300; 303 (Fed. Cir. 1989); *Dana Corp. v. American Precision Co.*, 827 F.2d 755, 759 (Fed. Cir. 1987); and *Porter v. Farmers Supply Serv., Inc.*, 790 F.2d 882, 885-86 (Fed. Cir. 1986).

license. "Repair" is deemed to be noninfringing conduct even though the repaired device differs from what the patent holder sold but is still covered by the patent. By extending the concept of repair to modifications of a brand-new device that create a fundamentally different device from the one intended by the patent holder and bargained for by the purchaser, the Federal Circuit has materially narrowed the patent holder's exclusive rights to make and sell the patented invention, contrary to this Court's decisions. This Court should therefore grant the petition to bring the Federal Circuit's decisions in line with precedent.

The Federal Circuit also improperly dismisses the importance of the intent of the inventor in determining whether or not conduct was permissible repair as set forth in *Wilson*. To avoid this important factor, the court of appeals simply reads out of *Wilson* that aspect of this Court's decision:

> Although at times speaking in terms of the intention of the inventor, the Court [in *Wilson*] focused on the nature of the device sold, and specifically on the fact that the machine was designed such that one group of components, the knives, would wear out long before the remaining components[.]

(A17.)

The Federal Circuit's view of *Wilson* is flawed in three respects. First, the portions of the opinion that the Federal Circuit quotes to support its assertion that *Wilson* "focused on the nature of the device sold" in fact show that this Court focused on the intention of the inventor:

> The proof in the case is, that one of [the inventor's] machines, properly made, will last in use for several years, but that its cutting-knives will wear out and must be replaced at least every sixty or ninety days.

> . . .
> [If such a] part of the combination *is meant to be* . . . frequently replaced, because it will not last as long as the other parts of the combination, its inventor cannot complain.

(A17 (quoting *Wilson*, 50 U.S. (9 How.) at 125-26).) Thus, when this Court considered whether a part of the patented device "is meant to be" frequently replaced, it was in fact focusing on the inventor's intent that a part of the device embodying the patented invention be frequently replaced.

Second, even if this Court's discussion in *Wilson* of the nature of the patented device sold was separate from its discussion of the inventor's intent, that intent was still a factor that this Court considered important in analyzing whether the accused conduct was repair. *See Wilson*, 50 U.S. (9 How.) at 125 ("frequently replacing [the knives], *according to the intention of the inventor*, is not a reconstruction of the invention"; the right to replace the knives "is not because they are of perishable materials, but because *the inventor of the machine has so arranged them*" that the overall cutting machine could not be used continuously without frequently replacing the knives). In this case, none of the parts in Hewlett-Packard's nonrefillable cartridge are arranged to be replaced at all, let alone frequently replaced during the device's life as in *Wilson*, and, "according to the intention" of Hewlett-Packard, its inkjet cartridges are nonrefillable. The Federal Circuit's holding of repair cannot be squared with this Court's decision in *Wilson*.

Third, even if focusing on the nature of the device sold means ignoring the patentee's intent, the district court made no factual findings regarding the nature of Hewlett-Packard's inkjet cartridges. Hewlett-Packard submits that, had the district court correctly construed the claims and gone on to examine the nature of Hewlett-Packard's inkjet cartridges, the district court could

not have found that ROT's conduct was repair. The nature of both the Kukla and Stanley cartridges is that neither the ink nor any other part of those single-use cartridges is replaceable. In addition, for Kukla, the cartridge cap as sold is not removable; only ROT's modifications make it so, and those modifications destroy the carefully designed air channel between the cap and the rest of the housing. For both cartridges, customers recognized that they are nonrefillable. Furthermore, Hewlett-Packard neither sells ink (or any other replacement parts) for its cartridges nor provides instructions on refilling its cartridges. Thus, the nature of Hewlett-Packard's patented inkjet cartridges demonstrates that ROT's conduct — converting brand-new, nonrefillable cartridges into refillable ones — cannot be "repair" as this Court has consistently viewed the matter.

Accordingly, this Court should grant the petition to reiterate that the inventor's intent — as demonstrated objectively by such factors as the features of the device, the bargain between the patent holder and purchasers, and whether the patent holder markets replacement parts — is a key factor is determining whether an accused infringer's conduct is repair. Alternatively, the Court should vacate the decision so that the district court can make pertinent factual findings on the nature of Hewlett-Packard's inkjet cartridges.

The Federal Circuit relied as well on another of this Court's decisions to support the holding of repair. In addressing ROT's conduct, the Federal Circuit agreed with Hewlett-Packard that ROT's modifications are "not conventional repair." (A14.) So, the court of appeals analogized the facts here to those that this Court held to be "kin to repair" in *Wilbur-Ellis*. (A16.) But the Federal Circuit's analogy is fatally flawed for two reasons.

First, the Federal Circuit overextended the "kin to repair" concept beyond the peculiar facts in *Wilbur-Ellis*. There, three fish-canning machines had become so corroded and rusted that

they were inoperable; those three and a fourth machine required cleaning and sandblasting to make them useable. *Wilbur-Ellis*, 377 U.S. at 423. The alleged infringer made renovations necessary to render the machines operable. *Id.* One element of the machines was so corroded that the alleged infringer could make it operable only by grinding it down so that it could be used to pack 5-ounce cans rather than the 1-pound cans the machines had originally been designed to pack. *Id.*

That conduct was held to be noninfringing. The Court explained that, had the renovations been made to permit the machines to pack the same size cans, they would unquestionably have been repair because the machines had "years of usefulness remaining." *Id.* at 424. Thus, the fact that the renovations permitted the machines to pack smaller size cans — an adaptation to a related use that was necessary to repair the machines — did not negate repair. Because the alleged infringer's conduct pertained to the useful capacity of the fish-canning machines, the conduct was "kin to repair." *Id.* at 425.

But under that rationale, ROT's conduct is not "kin to repair." The brand-new cartridges that ROT modifies are in no need of any renovation or adaptation for use. Deeming ROT's actions — converting unused, fully functioning nonrefillable cartridges to refillable cartridges — to be like "repair" is contrary to law and common sense. Accordingly, the Federal Circuit's holding that ROT's conduct is "kin to repair" was entirely unwarranted.

Second, in an attempt to fit this case to the facts in *Wilbur-Ellis*, the Federal Circuit stated its belief that the useful life of each of Hewlett-Packard's Kukla and Stanley cartridges "is substantially longer than the life of a single reservoir of ink." (A16.) But that issue was never before the district court. There was no factual finding by the district court, much less any evidence in the record, that the cartridges have a life much

longer than the initial ink supply. Therefore, the Federal Circuit's statement is improper fact-finding by an appellate court. *See Pullman-Standard v. Swint*, 456 U.S. 273, 291-92 (1982).

In fact, ROT's summary-judgment motion did not even raise the issue of whether the life of a Hewlett-Packard inkjet cartridge is "substantially longer" than its ink supply. If anything, ROT considered Hewlett-Packard's inkjet cartridges to be "useless piece[s] of garbage" when they run out of ink (CA Jt. App. 877, 224). But even if it somehow could be said that an issue concerning the life of Hewlett-Packard's cartridges was inherent in ROT's summary-judgment motion, all inferences regarding that factual contention should have been drawn in favor of Hewlett-Packard. Thus, it was plainly erroneous for the Federal Circuit to infer (wrongly) that Hewlett-Packard's cartridges have a "substantially longer" life than the ink supply.

Furthermore, the character of the Federal Circuit's unwarranted inference penalizes Hewlett-Packard for having engineered a reliable product. The Federal Circuit, taking part of a sentence in Hewlett-Packard's main appellate brief out of context, cited the statement that "Hewlett-Packard engineered the Kukla and Stanley cartridges so that no component would fail prior to delivery of all the ink contained therein." (A16.) By improperly — and incorrectly — inferring that Hewlett-Packard's cartridges have a useful life substantially longer than their initial ink supply, the Federal Circuit would encourage Hewlett-Packard and all other inventors to manufacture unreliable or inferior products. In essence, the Federal Circuit ruled that it would be better for Hewlett-Packard's legal position had it designed its cartridges to ensure that some of their parts — such as the thermal resistors or the nozzles — failed before the ink supply was exhausted; if so, per the Federal Circuit's reasoning, ROT's conduct might be infringing. But encouraging inventors to incorporate their patented technology into products that fail

prematurely or perform unreliably is hardly consistent with the purpose of the patent laws: to promote the progress of the useful arts. *See* U.S. Const. art. I, § 8, cl. 8.

At the very least, therefore, the improper appellate fact-finding is sufficient cause for this Court to grant this petition and summarily vacate the judgment, remanding to the district court to make factual findings regarding the life of Hewlett-Packard's inkjet cartridges. Otherwise, this Court should grant the petition to rule, regarding the first question presented, that the Federal Circuit's decision is an unwarranted extension of the "kin-to-repair" language in *Wilbur-Ellis*.

The Court should also grant this petition because, despite its mandate to bring uniformity to patent law, the Federal Circuit's decision on repair creates intolerable vagueness and confusion. The doctrine of repair has long been the subject of conflicting decisions; for example, before the Federal Circuit was created, two different courts of appeals on the same facts came to completely different conclusions, one finding permissible repair and the other finding infringing reconstruction. *Compare Fromberg, Inc. v. Gross Mfg. Co.*, 328 F.2d 803, 809 (9th Cir. 1964) (no infringement), *with Fromberg, Inc. v. Thornhill*, 315 F.2d 407, 412-13 (5th Cir. 1963) (infringement).

The decision in this case, however, fails to clarify matters. The court of appeals provides no standards for determining whether an alleged infringer's conduct is "kin to repair." Indeed, if "repair" can include modifying brand-new devices, as the Federal Circuit ruled here, it is utterly impossible to ascertain with any certainty just what conduct would not be "repair." In addition, on its face, the decision in this case is

inconsistent with the First Circuit's decision in *George Close*[5] and the Eighth Circuit's decision in *Miller Hatcheries*,[6] both decided before the Federal Circuit was created but which the Federal Circuit has never addressed, including on Hewlett-Packard's appeal in this case.

Further, the Federal Circuit failed even to follow the analysis of repair versus reconstruction that it enunciated — just six days before that court's decision here — in *Sandvik Aktiebolag v. E.J. Co.*, 121 F.3d 669 (Fed. Cir. 1997). The decision in *Sandvik* is an important one. There, for the first time, the Federal Circuit enumerated factors that should be considered when deciding whether conduct is permissible repair or infringing reconstruction. *Id.* at 673.

Applying the *Sandvik* factors, ROT's conduct is infringing. First, because Hewlett-Packard's cartridges are designed for a single use, they are spent after the user of an ROT product exhausts the initial ink supply. (This makes ROT an infringer under the doctrines of contributory infringement and inducing infringement. *See* 35 U.S.C. § 271(b), (c).) Second, the nature of ROT's actions — converting nonrefillable inkjet cartridges into refillable ones — and how they are performed are significant. Third, the nature of Hewlett-Packard's patented

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[5] *George Close Co. v. Ideal Wrapping Mach. Co.*, 29 F.2d 533, 534 (1st Cir. 1928) (a machine's purchaser has no right to reconstruct it so as to change the identity of the machine; "[Repair] does not . . . give to the purchaser the right to rebuild the purchased machines into other machines embodying the patent[ed] invention.")

[6] *Miller Hatcheries, Inc. v. Buckeye Incubator Co.*, 41 F.2d 619, 621 (8th Cir. 1930) (right to substitute or resupply elements extends only to repair and replacement made necessary to preserve a device's fitness; "*license goes no further* and *does not extend to* furnishing such elements to *increase effectiveness* or variety of the results of the combination.") (quoting *Leeds & Catlin II*, 213 U.S. at 326).

devices is such that they are designed for only a single use. Fourth, neither party introduced any evidence regarding a market for replacement inks. And fifth, objective evidence of Hewlett-Packard's design intent clearly demonstrated that its nonrefillable inkjet cartridges were not designed to be converted into refillable cartridges. Under the totality of these circumstances, ROT's conduct is infringing. But the Federal Circuit in this case did not even mention its earlier decision in *Sandvik*. With the Federal Circuit's decisions in this case and *Sandvik* standing side-by-side, this area of patent law is now in complete disarray. This provides an urgent basis for the Court to grant this petition.

II. THE FEDERAL CIRCUIT'S DECISION THAT PROCESS CLAIMS ARE IMPLIEDLY LICENSED BY THE SALE OF A DEVICE COVERED BY APPARATUS CLAIMS IS UNSUPPORTED BY THIS COURT'S PRECEDENT AND CONFLICTS WITH DECISIONS OF OTHER COURTS OF APPEALS

Three categories of claims may be included in a patent: product (or apparatus), process of making, and process of use. 37 C.F.R. § 1.141(b); Manual of Pat. Examining Proc. § 806.05(i) (6th ed,. rev. no., July 1997). Generally, however, the courts and patent practitioners speak of either apparatus or process claims. Apparatus claims protect articles of manufacture such as machines, devices, and compounds; process claims protect methods of making or using. Including both apparatus claims and process claims in a single patent is commonplace; a computer-database search indicates, using a conservative estimate, that over 100,00 U.S. patents still in force include both claim types.

One of the Hewlett-Packard patents in suit — the '295 patent — includes both apparatus and process claims. The apparatus claims cover Hewlett-Packard's Kukla and Stanley cartridges,

while the process claims include the steps of "storing," "providing," or "fill[ing]" inkjet cartridges with ink. (CA Jt. App. 1011-12.) The process claims cover manufacturing methods that Hewlett-Packard employs to fill the Kukla and Stanley cartridges with ink at its factories. But after they are manufactured, the nonrefillable Kukla and Stanley cartridges do not need to have any more "storing," "providing," or "fill[ing]" with ink to operate. Thus, Hewlett-Packard has never contended that the '295 patent's process claims cover *unmodified* Kukla or Stanley cartridges or how the unmodified cartridges are *used*. But Hewlett-Packard does contend that the process claims cover the act of putting ink into Kukla and Stanley cartridges after ROT modifies the cartridges to be refillable.

The district court opinion contains no discussion of the '295 patent and nine other Hewlett-Packard patents in suit. Accordingly, the district court provided no construction of the '295 patent's claims or any findings on whether any of its claims cover any ROT product or activity. Hewlett-Packard brought these facts to the Federal Circuit's attention and based upon them sought remand of the part of district court's decision regarding the ten patents that it failed to discuss.

But the Federal Circuit refused Hewlett-Packard's request. Instead, the Federal Circuit held that purchasers of Kukla and Stanley cartridges received an implied license to the '295 patent's process claims just because these cartridges were also covered by the '295 apparatus claims. (A20.) To support this holding, the Federal Circuit cited this Court's opinion in *Univis Lens*, 316 U.S. at 249, for the proposition that "HP 'authorized' the practice of any method claims in the '295 patent when it sold the cartridges unconditionally." (A21.) That ruling is contrary to other decisions by the Court and misreads *Univis Lens*.

The Federal Circuit's holding is inconsistent with the long-standing principle enunciated by this Court and repeatedly

followed by the courts of appeals that each and every claim of a patent is an independent invention — a separate property right — to be treated in law independently of the other claims for purposes of both validity and infringement. *See Leeds & Catlin I*, 213 U.S. at 319; *see also* 35 U.S.C. § 282 (each claim of a patent is presumed valid independently); *Maloney-Crawford Tank Corp. v. Sauder Tank Co.*, 465 F.2d 1356, 1365 (10th Cir. 1972); *Smith Indus. Int'l v. Hughes Tool Co.*, 396 F.2d 735, 736 (5th Cir. 1968); *Hall v. Keller*, 180 F.2d 753, 756 (5th Cir. 1950); *Sanitary Dist. of Chicago v. Activated Sludge, Inc.*, 90 F.2d 727, 730 (7th Cir. 1937).

The Federal Circuit's holding also directly conflicts with binding precedent of one of the Federal Circuit's predecessors, the Court of Claims, and with at least three other courts of appeals. Those courts have expressly ruled that a buyer who receives an implied license to use a device covered by one set of patent claims does not receive an implied license to other claims that do not cover the device, even though the other claims are in the same patent. *See Stukenborg v. United States*, 372 F.2d 498, 504 (Ct. Cl. 1967) (*per curiam*); *Priebe & Sons Co. v. Hunt*, 188 F.2d 880, 885 (8th Cir. 1951); *Hunt v. Armour & Co.*, 185 F.2d 722, 729 (7th Cir. 1950). Thus, even if the district court had determined that ROT obtained an implied license to the '295 patent's apparatus claims because those claims cover Kukla and Stanley cartridges, that implied license did not automatically extend to the acts of providing those cartridges with ink as claimed in the separate process claims.

The Federal Circuit's citation of *Univis Lens* is also misplaced. *Univis Lens* involved the sale of a device — a lens blank — that was "without utility until it [was] ground and polished as the finished lens of the patent." *Univis Lens*, 316 U.S. at 248-49. By selling a lens blank whose only utility was in manufacturing a finished lens covered by the patent at issue, the patent holder relinquished its rights. Accordingly, rather

than standing for the proposition that a patentee relinquishes patent rights when any kind of patented device is sold, *Univis Lens* holds only that patents rights are relinquished when an uncompleted device is sold with the intent that it will be completed in accordance with the patent. *Id.* at 251.

Here, the Kukla and Stanley cartridges were finished goods when sold, intended for and fully capable of use without modification. Accordingly, Hewlett-Packard could not have relinquished its rights to the '295 patent's process claims. Thus, the Federal Circuit misread and misapplied the decision in *Univis Lens* to the very different facts of this case.

The Federal Circuit also concluded that "[u]nauthorized use of the cartridges covered by the apparatus claims would *necessarily* infringe the asserted process claims." (A21.) That conclusion involves construing the '295 patent's process claims and making the factual determination whether those claims necessarily cover use of Hewlett-Packard's cartridges. But the district court neither conducted any claim construction nor made any such factual determination regarding the '295 patent; it was error for the Federal Circuit to have done so in the first instance.

Specifically, it is well-settled that claim construction is reviewed *de novo*. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (in banc), *aff'd*, 517 U.S. 370 (1996). But the Federal Circuit undertook no *review* of any construction of the '295 patent because the district court never construed that patent. In addition, the question of infringement — whether a patent's claims cover a device — is one of fact. *See Markman v. Westview Instruments, Inc.*, 116 S. Ct. 1384, 1392 (1996). But the Federal Circuit made its finding that use of the cartridges "necessarily infring[ed]" the '295 patent's process claims in the first instance. Aside from the fact that the appellate court's reading of the claim terms "storing,"

"providing," and "fill[ing]" and its infringement analysis were wrong, the court's improper claim construction and fact-finding essentially violated Hewlett-Packard's due-process rights. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1581-82 (Fed. Cir. 1996) (stating that proper claim construction entails looking first to the intrinsic evidence — i.e., the claim language, specification, drawings, and prosecution history — and then to extrinsic evidence if ambiguity regarding the claim remains); *see also Wright Med. Tech., Inc. v. Osteonics Corp.*, 122 F.3d 1440, 1445 (Fed. Cir. 1997) (reversing and remanding the district court's summary judgment of noninfringement because the district court had refused to give the patentee the opportunity to prove infringement under the doctrine of equivalents).

In addition, the Federal Circuit concluded that an implied license for "unauthorized use" of the '295 patent's process claims had been granted with Hewlett-Packard's sale of Kukla and Stanley cartridges because "when a patentee sells a device without condition, it parts with the right to enforce any patent that the parties might reasonably have contemplated would interfere with the use of the purchased device." (A20.) But in so holding, the Federal Circuit failed to appreciate that the claim terms "storing," "providing," and "fill[ing]" require the step of putting ink into the cartridges, a step that is not practiced when Hewlett-Packard's cartridges are used as sold. The Federal Circuit did not appear to appreciate that Hewlett-Packard's Kukla and Stanley cartridges contain a full charge of ink when they are sold and can be used without any modification or refilling — as they *are* used by millions of consumers. Simply stated, practicing the invention of the '295 patent's process claims is not required to use the Hewlett-Packard cartridges.

The Federal Circuit's assertion that use of the '295 patent's process claims was reasonably contemplated with HP's sale of Kukla and Stanley cartridges is equally flawed. According to the caselaw, a purchaser of a patented device receives an implied

license to use the device for the all uses to which the parties might *reasonably contemplate* the product will be put. *See Carborundum Co. v. Molten Metal Equip. Innovations, Inc.*, 72 F.3d 872, 878 (Fed. Cir. 1995); *Met-Coil Sys. Corp. v. Korners Unlimited, Inc.*, 803 F.2d 684, 686 (Fed. Cir. 1986); *Bandag, Inc. v. Al Bolser's Tire Stores, Inc.*, 750 F.2d 903, 925 (Fed. Cir. 1984). As an implied right, however, the defense of implied license is limited. A purchaser has no absolute "right to modify," statutory or otherwise, and the implied license does not automatically extend to a right to convert the device into something new and to sell the new device with impunity. Under this well-established and often-cited caselaw, the circumstances of the sale and the nature of the device must be considered before such broad rights can be said to have been conferred. *Id.*; *see also Universal Elecs., Inc. v. Zenith Elecs. Corp.*, 846 F. Supp. 641, 650 (N.D. Ill.), *aff'd*, 41 F.3d 1520 (Fed. Cir. 1994); *Miller Hatcheries, Inc. v. Buckeye Incubator Co.*, 41 F.2d 619, 621 (8th Cir. 1930); *George Close Co. v. Ideal Wrapping Mach. Co.*, 29 F.2d 533, 534 (1st Cir. 1928); *Davis Elec. Works v. Edison Elec. Light Co.*, 60 F. 276, 282 (1st Cir. 1894), *aff'g*, 58 F. 878, 879 (C.C.D. Mass. 1893).

Under *Carborundum* and *Bandag*, ROT bore the burden of demonstrating that: (1) the devices it purchased were not capable of *any* noninfringing use; and (2) the circumstances of the sale plainly indicated that the grant of a license to the '295 patent's process claims was inferred. *See Carborundum*, 72 F.3d at 878; *Bandag*, 750 F.2d at 924-25. Here, the district court never considered those issues and made no factual findings on whether ROT's conversion of unused, disposable, nonrefillable Hewlett-Packard cartridges into "semi-permanent refillable printer component[s]" (CA Jt. App. 877) was a use that Hewlett-Packard and ROT might reasonably have contemplated at the time these cartridges were bargained for and sold. Had the district court done so, Hewlett-Packard submits that it would have found that, because the '295 patent's process claims are not

needed to use the nonrefillable cartridges as intended, the cartridges do have noninfringing uses and the circumstances of the sale did not plainly indicate the grant of an implied license to the process claims. Thus, aside from ignoring well-settled implied-license caselaw, the Federal Circuit improperly engaged in fact-finding on what the parties reasonably contemplated. *See Pullman-Standard*, 456 U.S. at 291-92.

CONCLUSION

For the foregoing reasons, this Court should grant the petition for a writ of certiorari to consider the questions presented. Alternatively, this Court should vacate summarily the decision of the court of appeals and order that this matter be remanded to the district court to do the fact-finding and claim construction that the Federal Circuit should not have undertaken in the first instance.

Respectfully submitted,

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January 22, 1998

APPENDIX A

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

96-1379

HEWLETT-PACKARD COMPANY,

Plaintiff-Appellant,

v.

REPEAT-O-TYPE STENCIL MANUFACTURING CORPORATION, INC. and FRED KEEN,

Defendants-Appellees.

S. Leslie Misrock, Pennie & Edmonds, of New York, New York, argued for plaintiff-appellant. With him on the brief were Jonathan A Marshall, William G. Pecau, Steven I. Wallach, Alan Tenenbaum, and Neer Gupta. Of counsel on the brief were Morgan Chu and Bruce D. Kuyper, Irell & Manella LLP, of Los Angeles, California, and William H. MacAllister and Edward Maker II, Hewlett-Packard Company, of Palo Alto, California.

Edward F. O'Connor, Poms, Smith, Lande & Rose, of Irvine, California, argued for defendants-appellees.

Appealed from: U.S. District Court for the Northern District of California

Judge Jensen

United States Court of Appeals for the Federal Circuit

96-1379

HEWLETT-PACKARD COMPANY,

Plaintiff-Appellant,

v.

REPEAT-O-TYPE STENCIL MANUFACTURING CORPORATION, INC. and FRED KEEN,

Defendant- Appellees.

DECIDED: August 12, 1997

Before ARCHER, Chief Judge, MAYER, and LOURIE, Circuit Judges.

LOURIE, Circuit Judge.

Hewlett-Packard Company (HP) appeals from the summary judgment of the United States District Court for the Northern District of California, holding that Repeat-O-Type (ROT) does not infringe any of the asserted patents by modifying and reselling HP's ink jet cartridges. *Hewlett-Packard Co. v. Repeat-O-Type, Inc.*, No. 92-CV-3330 (N.D. Cal. Apr. 17,

1996). Because ROT's modification does not constitute impermissible reconstruction and because HP has failed to raise genuine issues of material fact regarding infringement of any of the patents in suit, we affirm.

BACKGROUND

HP manufactures and sells ink jet printers and disposable ink jet cartridges for its printers. Before running out of ink, the cartridges can print approximately 200 to 2000 pages, depending on the cartridge used and the nature of the printing being performed. Once the ink in a cartridge has been depleted, HP expects the cartridge to be discarded and replaced by a new one. Instructions accompanying the cartridges disclaim liability for printer damage caused by refilling and advise the user to "discard old print cartridge immediately."

The HP cartridges use thermal ink jet printing technology in which ink is transferred, drop-by-drop, onto paper, overhead transparencies, or other similar media. Specifically, the cartridges employ a printhead containing thermal resistors that are fabricated within a thin-film-semiconductor substrate and heat and propel ("jet") tiny droplets of liquid ink onto a medium, such as paper. The cartridges also contain an ink reservoir that stores the ink transferred to the printhead during printing. During the ink jet printing process, the printer's electronics provide electrical energy to the cartridge, which conducts the energy through the thermal resistors in the printhead, causing the thermal resistors to heat. As a result, the ink which is delivered to the resistors boils and forms a vapor, which causes nearby ink droplets to be propelled out of the cartridge and onto the paper or other medium. HP warns its customers that refilling the cartridges may reduce print quality due to clogging of the printhead nozzles, corrosion of the cartridge electronics, or incompatibility of non-approved inks with the cartridges.

HP owns numerous patents on various facets of ink jet printing technology, including patents on ink jet printers, cartridges, and ink formulations. Twelve of these patents are involved in this suit. Of the twelve asserted patents, two of them, U.S. Patents 4,827,294 and 4,931,811, are directed to ink jet cartridges (referred to in the patents as "ink jet pens") and a third, U.S. Patent 5,108,503, is directed to a specific ink formulation. The remaining patents are directed to other aspects of ink jet printing technology and are directed to specific components within ink jet cartridges: U.S. Patents 4,347,524 (shock absorption of an ink supply tube); 4,635,073 (thermal printhead); 4,683,481 (thermal resistors in substrate); 4,771,295 (process for filling an ink jet cartridge with ink); 4,794,410 (thermal resistor structure); 4,794,411 (ink propulsion from printhead); 4,812,859 (multichamber ink jet pen); 4,862,197 (thin-film-resistor printhead); and 4,872,027 (printer and ink jet printhead and their interconnection).

The '294 patent, entitled "Thermal Ink Jet Printhead Assembly Employing Beam Lead Interconnect Circuit," is directed to an "ink jet pen" (*i.e.*, a cartridge), which forms an improved electrical connection between the printhead of the pen and the ink jet printer carriage in which the pen is mounted.

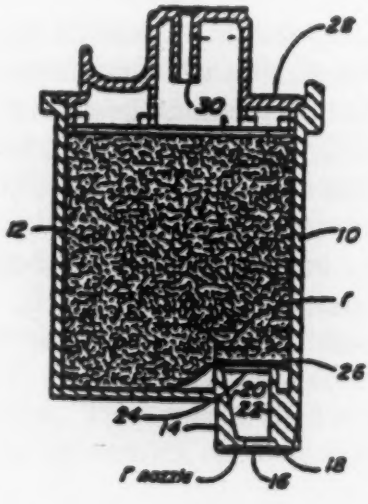
Claim 3 of the '294 patent, which is representative, reads as follows:

> An ink jet pen including in combination:
> (a) a pen body housing having an ink storage compartment therein and an ink flow port adjacent one surface thereof and further having outer surfaces which are contoured to mate with adjacent surfaces of a pen carriage member,
> (b) a thin film printhead mounted on said one surface of said pen body housing and adjacent to said ink flow port

therein for receiving ink from said ink flow port during an ink jet printing operation, and

(c) a flexible electrical circuit member including a plurality of beam leads bonded at predetermined locations on said thin film printhead for supplying electrical power and signals thereto during an ink jet printing operation, said flexible electrical circuit being extended over one of said contoured outer surfaces of said pen body housing and secured thereto, whereby electrical conductors in a pen carriage are adapted to mate with certain ones of said beam leads of said flexible electrical circuit for supplying power and electrical drive signals to said beam leads when said pen body housing is mounted in said carriage.

The '811 patent, entitled "Thermal Ink Jet Pen Having A Feedtube With Improved Sizing And Operational With A Minimum Of Depriming," is directed to an "ink jet pen" that uses a "standpipe" to improve the connection between the ink reservoir and the printhead.



As illustrated in the accompanying diagram from the '811 patent, the pen body construction includes a pen body housing (10) and a cap (28). The pen body also includes a foam storage material (12) which serves as the ink reservoir, a standpipe formed by walls (20) and (22), and a printhead (18). The cap (28) has an air vent tube (30) for supplying air to the ink reservoir as ink is transferred through the standpipe to the printhead. The patented invention improves on the prior art by providing a standpipe that prevents air bubbles from impeding the flow of ink to the printhead.

Claim 2 of the '811 patent, which is representative, reads as follows:

> 2. A thermal ink jet pen including an ink reservoir therein, and a thin film printhead interconnected to said reservoir by way of a standpipe, with said standpipe having an air accumulating section at the ink receiving end thereof and said thin film printhead including an orifice plate with a plurality of orifii therein of a known radius, r_{nozzle} characterized in that the minimum acceptable radius, r, of said air accumulating section of said standpipe satisfies the equation $r/r_{nozzle} > 100$.

The '503 patent, entitled "Smear Resistant Inks For Ink jet Printers," is directed to an ink formulation. Claim 2 depends from claim 1, which has recently been disclaimed, and adds the following limitation: "The ink of claim 1 which is buffered to a pH from about 6 to about 9." Likewise, claims 15 and 19 are limited to formulations containing "sufficient ammonium acetate . . . to provide an ink with a pH from about 7 to about 7.5 . . . ." The other asserted claims, 3, 8, 10, 16, and 18, depend from either claims 2 and 15 and thus incorporate the pH limitations.

ROT purchases two types of HP ink jet cartridges, model HP 51625A (known within HP as the "Kukla" cartridge) and model HP 51608A (known within HP as the "Stanley" cartridge). The Kukla cartridge is designed for color printing and contains three reservoirs which hold inks corresponding to the three primary subtractive colors. The Kukla cartridge includes a cap that is ultrasonically welded to the rest of the body of the cartridge, the cap being designed to permit small amounts of air to enter the ink reservoir. The Stanley cartridge, on the other hand, has a single reservoir and is sold by HP with black ink only. It is designed for use with the DeskJet and DeskWriter family of ink jet printers and for the HP FAX-300 ink jet fax machine. The Stanley cartridge includes a hole that is used to fill the ink reservoir at the time of manufacture and also allows air to enter the reservoir during printing.

The Kukla and Stanley cartridges were designed to be non-refillable. As James M. Martin, a product manager for HP, stated, because "refilled cartridges present significant problems of resistor lifetime, nozzle clogging and air bubble formation, the cartridges are not intended to be refilled. Accordingly, the user instructions in the Kukla and Stanley cartridges advise the user to 'Discard old print cartridge immediately.'" ROT has chosen to disregard HP's advice. ROT purchases Kukla and Stanley cartridges, modifies them so that they will be refillable, and then resells them as refillable ink jet cartridges. As HP concedes, ROT starts with brand-new and unused HP cartridges. It does not modify "spent" cartridges. ROT clearly describes the cartridge modification in its own patent, U.S. Patent 5,408,256, entitled "Refillable Color Ink Jet Cartridge And Method For Making Said Cartridge:"

> A non-refillable color ink jet cartridge such as the Hewlett-Packard #51625A can be converted into a refillable cartridge. The upper portion of this cartridge contains the three air vent/ink refill holes, and this upper

portion has a plastic cap capable of being removed. After placing the body of the plastic cartridge on a suitable support such as, for example, the edge of a table, the protective plastic cap covering the upper portion of the cartridge can be removed by prying it off of a cartridge with a sharp instrument such as a knife.

. . .

The upper protective cap [26] can now be modified so that it can be placed snugly back onto the main cartridge body [12] as often as is necessary to replenish depleted ink supplies. A variety of methods can be employed to do this, including placing two adhesive backed pads [36 and 38] at both sides of the longitudinal length of the upper protective cap.

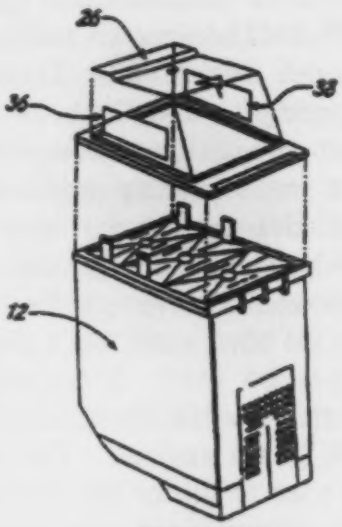


Figure 3 from the '256 Patent

'256 Patent, col. 1, line 56 to col. 2, line 18. ROT sells the modified refillable ink jet cartridges in kits which also contain bottles of refillable ink. The refillable ink is not manufactured or supplied by HP. In addition to modifying the cartridges, ROT replaces the black ink of Stanley cartridges with a variety of color inks and resells them as color cartridges.

In 1992, HP filed suit against ROT after learning that ROT was selling refillable ink jet cartridges. In its original complaint, HP sued ROT for trademark infringement, unfair competition, and other non-patent causes of action. Shortly thereafter, HP amended its complaint to assert that ROT's modification and resale of the cartridges infringed eleven HP

patents pertaining to ink jet cartridges. HP also amended the complaint to assert that the inks sold by ROT infringed one of HP's ink patents and to add Fred Keen, ROT's president and majority stockholder, as a defendant.

ROT moved for summary judgment of non-infringement of all of the asserted patents, and HP moved for summary judgment of infringement on the trademark claims and on two of the patent claims. HP asserted that ROT's resale of the modified Stanley cartridge infringed the '811 patent and that ROT's resale of the modified Kukla cartridge infringed the '294 patent. After hearing arguments on the cross-motions for summary judgment, the district court ruled in favor of HP on the trademark infringement claims and in favor of ROT on the patent infringement claims. The trademark ruling was not appealed.

With regard to patent infringement, the district court first stated that, in light of HP's sale, ROT had the right to use and resell Kukla and Stanley cartridges that were lawfully purchased. The court then considered whether ROT's modification created an infringing product. The court noted that ink was not an element of the claimed invention of the '811 patent. Thus, the court held that ROT's replacement of the ink, a non-patented component, in the Stanley cartridge was not patent infringement.

As for the '294 patent, the court noted that the cap is not an element of the claims and held that "breaking the seal of the cap and replacing the cap with shims so that the cap could be removed and the cartridge refilled by the consumer, does not constitute impermissible 'reconstruction.'" Finally, holding that HP failed to present sufficient evidence of infringement to create any genuine issues of material fact, the court ruled that ROT was entitled to judgment of non-infringement on all the patent claims as a matter of law. Finding no just reason for delay, the district court entered final judgment on the patent claims pursuant to Fed. R. Civ. P. 54(b). HP now appeals to this

court. We have jurisdiction to hear this appeal under 28 U.S.C. § 1295(a)(1) (1994).

DISCUSSION

We review a district court's grant of summary judgment *de novo*. *Conroy v. Reebok Int'l, Ltd.*, 14 F.3d 1570, 1575, 29 USPQ2d 1373, 1377 (Fed. Cir. 1994). Summary judgment is appropriate when no genuine issue exists as to any material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). Thus, summary judgment may be granted when no "reasonable jury could return a verdict for the nonmoving party." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). In determining whether there is a genuine issue of material fact, the evidence must be viewed in the light most favorable to the party opposing the motion, with doubts resolved in favor of the opponent. *Transmatic, Inc. v. Gulton Indus., Inc.*, 53 F.3d 1270, 1274, 35 USPQ2d 1035, 1038 (Fed. Cir. 1995).

A. The '294 and '811 Patents

The patent statute provides that "whoever without authority makes, uses, . . . or sells any patented invention, in the United States . . . during the term of the patent therefor, infringes the patent." 35 U.S.C. § 271(a) (1994). Infringement thus not only requires that claims read on accused devices, but also requires that the accused devices be made, used, or sold without authority. Thus, even if the patents in suit read on the accused cartridges, there is no infringement if ROT acted "with authority" granted by HP's unconditional sale of the cartridges in question.

HP argues that ROT's modification and resale of the Stanley and Kukla cartridges infringes the '294 and '811 patents. HP first asserts that the district court erred in its interpretation of the

claims of the '294 and '811 patents and that this error infected the district court's infringement analysis. Specifically, HP argues that the district court erred by holding that the "patents are not for the [ink_jet] cartridges themselves; they are for certain elements which are *in* the cartridges" (emphasis in original).

HP also argues that ROT's modification creates new cartridges because the modified cartridges have different properties, different features, and different performance characteristics compared with the cartridges sold by HP. HP contends that because ROT sells cartridges that differ from the cartridges purchased from HP, the cartridges are "new," not "authorized," and therefore infringe. HP emphasizes that, although the cap is not explicitly recited in the claims, the cap on the Kukla cartridge is part of the "pen body housing" recited in claim 3 of the '294 patent. Thus, HP argues, modification of the cap necessarily involves modification of the claimed "pen body housing" and thus the use and sale after such modification is an infringement. Similarly, HP argues that the cap of the Stanley cartridge is part of the claimed "ink reservoir" of claim 2 of the '811 patent.

ROT responds that refilling the ink in the cartridges cannot constitute infringement, because, while HP may have a patent on the cartridge, *i.e.*, the container, HP does not have a patent on the contents of the container, specifically, the ink. ROT further argues that the replacement of components of the cartridges that are not specifically recited elements of the asserted claims cannot be considered a "manufacture" of the claimed inventions. ROT argues that because neither the cap nor the ink are recited elements of the claims, their modification or replacement cannot constitute infringement.

We agree with HP that the court misconstrued the claims. They relate to ink jet cartridges, not to specific components

within the cartridges. The preamble of each claim clearly states that it relates to an "ink jet pen including" the recited limitations. The claim term "including" is synonymous with "comprising," thereby permitting the inclusion of unnamed components. Thus, claim 3 of the '294 patent, for example, reads on ink jet pens that contain the recited pen body housing, thin film printhead, and the flexible electrical circuit member. If these three elements can be identified in ROT's cartridges, then such cartridges are within the scope of that claim and the unauthorized manufacture or sale of such a cartridge infringes the claim.

Although the district court did not construe the claim terms "pen body housing" or "ink reservoir," and hence did not consider whether modification of the cap results in a modification of specific elements of the claims, for purposes of our inquiry into ROT's "authority," we will assume that HP's patents read on ROT's modified cartridges. We will also assume that modification of the cap involves "making" the "ink jet pens" claimed in the '294 and '811 patents. The question before us is whether this modification is authorized, or whether it exceeds the scope of the implied license granted to ROT and subsequent purchasers by the sale of the ink jet cartridges.

Generally, when a seller sells a product without restriction, it in effect promises the purchaser that in exchange for the price paid, it will not interfere with the purchaser's full enjoyment of the product purchased. The buyer has an implied license under any patents of the seller that dominate the product or any uses of the product to which the parties might reasonably contemplate the product will be put. *See Mitchell v. Hawley*, 83 U.S. (16 Wall.) 544, 548 (1872) ("Complete title to the implement or machine purchased becomes vested in the vendee by the sale and purchase . . . . Patented implements or machines sold to be used in the ordinary pursuits of life become the private

individual property of the purchasers, and are no longer specifically protected by the patent laws . . . .").

The authority to use and sell a purchased device, however, does not include the right to make a new device or to reconstruct one which has been spent. Reconstruction, *i.e.*, the re-creation of a patented combination, is an infringement because such activity is beyond the implied authorization to use and sell a patented device. As the Supreme Court has stated:

> The decisions of this Court require the conclusion that reconstruction of a patented entity, comprised of unpatented elements, is limited to such a true reconstruction of the entity as to 'in fact make a new article,' after the entity, viewed as a whole, has become spent. In order to call the monopoly, conferred by the patent grant, into play for a second time, it must, indeed, be a second creation of the patented entity. . . . Mere replacement of individual unpatented parts, one at a time, whether of the same part repeatedly or different parts successively, is no more than the lawful right of the owner to repair his property.

Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336, 346, 128 USPQ 354, 359 (1961) ("*Aro I*") (citations omitted). On the other hand, one does have authority to repair a patented device that he has purchased. This case raises the question whether the modification of the HP cartridges by ROT is repair, as the district court implicitly held, or is tantamount to reconstruction, as HP urges.

It is undisputed that HP sold and ROT purchased the Kukla and Stanley cartridges without restriction; HP has not alleged that ROT breached any contract affecting the transaction. When HP (or an agent with authority to sell) sold the cartridges, HP parted with the right to enforce any of its patents relating to the

cartridges thus sold to exclude the purchaser from using or selling them. *See Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 484, 141 USPQ 681, 685 (1964) ("*Aro II*") ("[I]t is fundamental that sale of a patented article by the patentee or under his authority carries with it 'an implied license to use.'") (quoting *Adams v. Burke*, 84 U.S. (17 Wall.) 453, 456 (1873)); *United States v. Univis Lens Co.*, 316 U.S. 241, 249 (1942) ("An incident to the purchase of any article, whether patented or unpatented, is the right to use and sell it . . . ."); *Mitchell*, 83 U.S. (16 Wall.) at 547 (stating that where the sale is without restriction, "the rule is well established that the patentee must be understood to have parted to that extent with all his exclusive rights, and that he ceases to have any interest whatever in the patented machine so sold and delivered").

HP correctly states that ROT's modification is not conventional repair. The caps on the purchased cartridges are not broken or defective. On the other hand, neither is ROT's modification a "reconstruction" of the patented combination. A reconstruction occurs after the patented combination, as a whole, has been spent, when "the material of the combination ceases to exist." *Wilson v. Simpson*, 50 U.S. (9 How.) 109, 123 (1850). While there is no bright-line test for determining whether a modification is a "reconstruction" sufficient to infringe a patent owned by the seller of the product, on the undisputed facts in this case, we agree with the district court that ROT has not reconstructed the cartridges. ROT's modification of the caps of HP's cartridges is more akin to permissible "repair" than to impermissible "reconstruction." *See Kendall Co. v. Progressive Med. Tech. Inc.*, 85 F.3d 1570, 1575, 38 USPQ2d 1917, 1921 (Fed. Cir. 1996) (stating that "as long as reconstruction does not occur or a contract is not violated, nothing in the law prevents a purchaser of a device from prematurely repairing it"). While HP had the right to be free from competition from those who would reconstruct spent products, ROT did not do that. Even accepting that ROT's actions constitute a "making" of the

accused cartridges, they were made from new and unused HP cartridges purchased from a legitimate source, and the property of ROT; the HP cartridges were certainly not spent. Furthermore, ROT does not *replace* any of the elements recited in the claims; the housing, printhead, standpipe, ink reservoir, and flexible strip are all original components of the purchased cartridges. Using the original housing, ROT only changes the way in which the cap of an unused, new cartridge is connected to the remainder of the cartridge. This modification allows ROT's customers to use the cartridges for the duration of the life of the patented combination, rather than be limited by the duration of the ink supply in the cartridge.

The Supreme Court decision in the case of *Wilber-Ellis Co. v. Kuther*, 377 U.S. 422, 141 USPQ 703 (1964), decided on the same day as *Aro II*, is instructive on this point. In that case, the patentee sued the purchaser of patented fish-canning machines after the purchaser modified the machines. As originally constructed, the machines packed fish into one-pound cans. The purchaser had six of thirty-five elements of the machines resized so that the machines would pack fish into smaller five-ounce cans. Declining to treat the unrestricted sale of the machines as a license for use on one-pound cans only, the Supreme Court held:

> When six of the 35 elements of the combination patent were resized or relocated, no invasion of the patent resulted, for as we have said the size of cans serviced by the machine was no part of the invention; nor were characteristics of size, location, shape and construction of the six elements in question patented. Petitioners in adapting the old machines to a related use were doing more than repair in the customary sense; but what they did was kin to repair for it bore on the useful capacity of the old combination, on which the royalty had been paid.

Wilbur-Ellis, 377 U.S. at 424-25, 141 USPQ at 704-05. Likewise, ROT's modification of the original HP cartridges improved their usefulness by allowing ROT and its customers to use them for their own purposes. It was "kin to repair." We find HP's arguments attempting to distinguish *Wilbur-Ellis* unconvincing.

HP argues that the machines in *Wilbur-Ellis* had not reached the end of their intended life, whereas the intended and useful life of its cartridges ends as soon as a single reservoir of ink is depleted because at that point, print quality cannot be assured. It asserts that "Hewlett-Packard engineered the Kukla and Stanley cartridges so that no component would fail prior to delivery of all of the ink contained therein." While such engineering may be testimony to the quality of HP's product, and ROT's actions may affect HP's warranties, this argument does not support HP's legal position. HP's unilateral intentions cannot change the fact that ROT has only modified an unused cartridge that HP sold without restriction. HP fails to recognize the distinction between what it intended to be the life of the cartridge, as determined by the ink supply, and its actual useful life. As HP's assertion makes clear, the cartridges are specifically designed so that the ink is depleted not only *before* the patented combination as a whole is spent, but *before* any single component of it is spent (such as the printhead). Thus, the useful life of the patented combination is substantially longer than the life of a single reservoir of ink.

HP also argues that the boundary between "permissible repair" and "impermissible reconstruction" turns on the intention of the patentee. HP contends that it has clearly manifested its intent that the ink jet cartridges be non-refillable. The package insert accompanying the cartridges suggests that the cartridges be discarded once they are empty; HP does not sell refillable cartridges, and HP does not sell ink refills. Because it has always manifested an intent that its cartridges be discarded, it

argues, the creation of refillable or refilled cartridges are unauthorized acts which constitute an infringement of its patents. HP in effect argues that any change to a patented product that is not intended by the patentee constitutes reconstruction. In support of its theory, HP cites *Wilson*, 50 U.S. (9 How.) at 125-126, as establishing an "intent-of-the-patentee analysis" for determining whether conduct is to be considered a "repair" or a "reconstruction." We do not agree; HP has misread *Wilson*. Although at times speaking in terms of the intention of the inventor, the Court focused on the nature of the device sold, and specifically on the fact that the machine was designed such that one group of components, the knives, would wear out long before the remaining components:

> The proof in the case is, that one of [the inventor's] machines, properly made, will last in use for several years, but that its cutting-knives will wear out and must be replaced at least every sixty or ninety days.
>
> . . .
>
> [If such a] part of the combination is meant to be . . . frequently replaced, because it will not last as long as the other parts of the combination, its inventor cannot complain.

Wilson, 50 U.S. (9 How.) at 125-26. Although HP cites *American Cotton-Tie Co. v. Simmons*, 106 U.S. (6 Otto.) 89, 94 (1882), as additional support for its "intent-of-the-patentee" theory, the Supreme Court, in *Aro I*, referred to *American Cotton-Tie* by noting that "the fact that the [devices] were marked 'licensed to use once only' was deemed of importance by the Court." *Aro I*, 365 U.S. at 343 n.9, 128 USPQ at 358 n.9. Thus, absent a restriction having contractual significance, a purchase carries with it the right to modify as long as reconstruction of a spent product does not occur. *See Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 24 USPQ2d 1173 (Fed. Cir. 1992) (stating that should "single use only"

restriction be enforceable on remand, reuse of device would be a breach of contract and therefore unauthorized). The question is not whether the patentee at the time of sale intended to limit a purchaser's right to modify the product. Rather the purchaser's freedom to repair or modify its own property is overridden under the patent laws only by the patentee's right to exclude the purchaser from making a new patented entity. Each case turns on its own particular facts, but a seller's intent, unless embodied in an enforceable contract, does not create a limitation on the right of a purchaser to use, sell, or modify a patented product as long as a reconstruction of the patented combination is avoided. A noncontractual intention is simply the seller's hope or wish, rather than an enforceable restriction.

HP's arguments based on decisions of this court are similarly unavailing. In *Sage Products, Inc. v. Devon Industries, Inc.*, 45 F.3d 1575, 33 USPQ2d 1765 (Fed. Cir. 1995), we held that an inner container of a patented medical waste disposal system was effectively spent when filled and thus could be replaced or repaired without infringing the patent. In response to the patentee's argument that the inner containers were not spent, the court noted, *inter alia*, that the patentee admitted that it intended that customers replace the inner containers. 45 F.3d at 1578, 33 USPQ2d at 1767. The patentee's intent was relevant, not to limit use by the purchasers, but to show that the patentee expected the product to be repaired. Neither that decision nor other decisions of this court cited by HP suggest that a patentee's intent alone limits the scope of the implied license that accompanies the sale of goods.

Accordingly, even though HP clearly intends the filled cartridges which it sells to be discarded after a single use, HP cannot use the patent laws to impose restrictions on the cartridges' use after selling them unconditionally. The modification made by ROT, essentially replacing the type of seal holding the cap onto an unused cartridge, is not a "second

creation of the patented entity" so as to constitute an infringement of HP's ink jet pen patents. *See Aro I*, 365 U.S. at 346, 128 USPQ at 359. Were we to rule in HP's favor in this case, we would be depriving ROT of the right to use and resell its own property, an unused product it purchased free of restriction, and enable HP to limit the use of a product it freely sold without restriction.

B. The '503 Ink Patent

HP argues that summary judgment of non-infringement of the '503 patent was improperly granted because the court ignored evidence of infringement proffered by HP, including "admissions" of infringement by two of ROT's ink chemists. We find no error in the district court's conclusion that, viewing the evidence in a light most favorable to HP, it has failed to meet its burden to show the existence of genuine issues of fact for trial. Regarding the "admissions," HP cites deposition testimony by a former ROT chemist in which the chemist stated that he believed that ROT's black ink refill "fell within the claims" of the '503 patent. However, during the same deposition and when questioned claim by claim, he could not identify a single claim that read on ROT's inks. He further explained in detail why the chemical compositions of ROT's inks did not meet each element of the asserted claims as he understood them. Upon questioning regarding the discrepancy in his testimony, the chemist explained that he did not understand the examining attorney's use of the phrase "fall within the claims" to mean that every limitation of each claim was met by the accused product. Thus, the chemist offered unrebutted testimony that the accused ink was not within the scope of the asserted claims. His earlier conclusory response, based on a misunderstanding of the question asked and immediately shown to be an inaccurate summary of his views, does not raise a genuine issue of material fact.

The other evidence cited by HP is the statement by an ROT chemist that ROT's president had told her on her first day of work that "there was a problem, there was patent infringement" regarding an ink jet ink formula developed by another chemist. This statement is hardly an admission that the accused products infringe the asserted claims of the patent at issue. HP has failed to provide any evidence that creates a genuine issue of fact concerning whether the accused products contain inks that are covered by the asserted claims of the '503 patent.

C. The Remaining Patents In Suit

The remaining nine patents allegedly cover various components of ink jet cartridges. ROT does not appear to dispute this. In its Statement of Undisputed Material Facts submitted to the district court, ROT admitted that "[t]he claims of [the patents in suit] claim either structure of the elements of the cartridges or methods of making same." However, ROT contends that its modification does not affect these elements, and HP does not allege otherwise. Rather HP argues that the modified cartridges are "new" devices that infringe these patents as well. As previously discussed, this argument misses the mark. HP has not introduced any evidence to show that ROT's limited modification constitutes reconstruction of the patented cartridges.

With regard to the '295 patent, HP argues that ROT's activities infringe process claims directed to "providing" ink reservoirs with ink and "filling" ink reservoirs with ink. This argument is also unpersuasive. Unauthorized use of the cartridges covered by the apparatus claims would necessarily infringe the asserted process claims. As previously articulated, however, when a patentee sells a device without condition, it parts with the right to enforce any patent that the parties might reasonably have contemplated would interfere with the use of the purchased device. While HP may assert that it didn't intend that

the cartridges be refilled, there was no agreement on that point. Moreover, a license was impliedly granted under the patent for the additional reason that it contained apparatus claims as well as process claims covering use of the cartridges. Accordingly, HP "authorized" the practice of any method claims in the '295 patent when it sold the cartridges unconditionally. *Univis Lens Co.*, 316 U.S. at 249 (stating that "upon familiar principles the authorized sale of an article which is capable of use only in practicing the patent is a relinquishment of the patent monopoly with respect to the article sold"). Finally, HP has not met its burden of showing the existence of an issue of material fact with regard to the asserted method claims of the '295 patent.

CONCLUSION

The district court did not err in granting ROT's motion for summary judgment of non-infringement of all twelve asserted patents and in denying HP's contrary motion regarding two of the patents. HP sold ink jet cartridges without condition or restriction. ROT lawfully purchased the cartridges and modified them in a manner that was more akin to permissible repair than to impermissible reconstruction. Therefore, ROT's modification and sale of the cartridges did not infringe the asserted claims of the two "ink jet pen" patents or the asserted process claims allegedly covering the use of the cartridges. Because it is undisputed that the modification did not effect a reconstruction of any claimed subject matter in the nine patents allegedly covering components of the cartridges, these claims were not infringed as well. In addition, the district court did not err in holding that HP failed to raise a genuine issue of fact regarding infringement of the asserted ink patent. Accordingly, the decision of the district court is affirmed.

AFFIRMED

APPENDIX B

B1

United States Court of Appeals for the Federal Circuit

96-1379

HEWLETT-PACKARD COMPANY,

Plaintiff-Appellant,

v.

REPEAT-O-TYPE STENCIL MANUFACTURING CORPORATION, INC. and FRED KEEEN [sic],

Defendants-Appellees.

JUDGMENT

ON APPEAL from the UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF CALIFORNIA

in Case NO(S). 92-CV-3330

This CAUSE having been heard and considered, it is

ORDERED and ADJUDGED:

AFFIRMED

B2

ENTERED BY ORDER OF THE COURT

DATED AUG 12, 1997 /s/ Jan Horbaly
Jan Horbaly, Clerk

ISSUED AS A MANDATE: SEP 12, 1997

APPENDIX C

C1

United States Court of Appeals for the Federal Circuit

96-1379

HEWLETT-PACKARD COMPANY,

Plaintiff-Appellant,

v.

REPEAT-O-TYPE STENCIL MANUFACTURING CORPORATION, INC. and FRED KEEN,

Defendants-Appellees.

ORDER

United States Court of Appeals for the Federal Circuit

ORDER

A combined petition for rehearing and suggestion for rehearing in banc having been filed by the APPELLANT, and a response thereto having been invited by the court and filed by the APPELLEE, and the petition for rehearing having been referred to the panel that heard the appeal, and thereafter the suggestion for rehearing in banc and response having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the suggestion for rehearing in banc be, and the same hereby is, DECLINED.

The mandate has already issued.

FOR THE COURT,
JAN HORBALY, CLERK

Dated: October 14, 1997

By /s/ Alex Van Veen
Alex Van Veen
Staff Law Clerk

cc: S. LESLIE MISROCK
EDWARD F. O'CONNOR

FILED
U.S. COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

OCT 14, 1997

JAN HORBALY
CLERK

HEWLETT-PACKARD V REPEAT-O-TYPE, 96-1379
(DCT - 92-CV-3330)

Note: Pursuant to Fed. Cir. R. 47.6, this order is not citable as precedent. It is a public record.

APPENDIX D

D1

Filed: February 7, 1995
RICHARD W. WIEKING, CLERK

United States District Court
Northern District of California

HEWLETT-PACKARD COMPANY, Plaintiff, v. REPEAT-O-TYPE STENCIL MANUFACTURING CORPORATION and FRED KEEN, Defendants.	No. C-92-3330 DLJ ORDER

On November 23, 1994, the Court heard arguments on plaintiff's and defendants' cross-motions for summary judgment on plaintiff's patent claims and plaintiff's motion for summary judgment on the trademark claims. Bruce W. Schwab of Townsend and Townsend Khourie and Crew and Morgan Chu of Irell & Manella appeared on behalf of plaintiff Hewlett-Packard Company. Edward F. O'Connor of Poms, Smith, Lande & Rose appeared on behalf of defendant Repeat-O-Type Stencil Manufacturing Company. David A. Gauntlett of Callahan & Gauntlett appeared on behalf of defendant Fred Keen. Having considered the arguments of counsel and the papers submitted, the Court hereby GRANTS plaintiff partial summary judgment on the issue of liability for the trademark

claims and GRANTS defendants summary judgment on the patent claims.

STATEMENT OF FACTS

On August 19, 1992, plaintiff Hewlett-Packard Company ("Hewlett-Packard") filed this action alleging trademark infringement, false designation, description and representation, and unfair competition and deceptive trade practices by Repeat-O-Type Stencil Manufacturing Company ("Repeat-O-Type"). In its Third Amended Complaint filed July 21, 1994, Hewlett-Packard added Fred Keen, president of Repeat-O-Type, as an additional defendant, and added patent claims against the defendants.

Plaintiff's claims arise from the sale by Repeat-O-Type of two modified Hewlett-Packard print cartridges. Repeat-O-Type purchased two types of Hewlett-Packard inkjet cartridges, the HP 51608A inkjet print cartridge (the "Stanley cartridge") and the HP 51625A inkjet print cartridge (the "Kukla" cartridge), from authorized Hewlett-Packard distributors. Repeat-O-Type converted the Stanley cartridge to contain colored ink rather than the original black ink. Repeat-O-Type converted the Kukla cartridge by breaking the seal of the cap and replacing the cap with shims so that the cap could be removed and the cartridge refilled by the consumer. Repeat-O-Type put the modified cartridges back in the original Hewlett-Packard boxes. The original Hewlett-Packard boxes, now housing the modified cartridges, along with a supply of refill ink, were put inside an outer package with a see-through plastic "window" and sold by Repeat-O-Type as refill kits. Repeat-O-Type generally placed its name on the flap of the outer package, although certain packages were sold without the Repeat-O-Type logo anywhere

on the product.[1] The original Hewlett-Packard instructions were removed from the package and replaced with Repeat-O-Type's own instructions.

Hewlett-Packard claims that Repeat-O-Type's modifications infringe Hewlett-Packard's patent rights, and that Repeat-O-Type's use of Hewlett-Packard's trademarks creates confusion as to the product's source.[2] In its Amended Complaint, Hewlett-Packard claims violations of 11 of its patents, but for purpose of summary judgment, Hewlett-Packard restricts its argument to two of its patents, Patent No. 4,827,294 ("the '294 patent") and Patent No. 4,931,811 ("the '811 patent").

PROCEDURAL BACKGROUND

In August 1992, Hewlett-Packard filed a complaint alleging trademark infringement in violation of the Lanham Act, 115 U.S.C. § 1051 *et seq*. Two days later, United States District Court Judge Fern M. Smith granted plaintiff's simultaneously filed application for an order directing the U.S. Marshall to seize and impound all reproductions, counterfeits or copies of [p]laintiff's federally registered "HEWLETT-PACKARD," "HP," and "DeskJet" trademarks and "hp" logo. August 21, 1993 Order, at 3. In the same Order, defendants were directed to show cause why a preliminary injunction should not issue enjoining defendants from infringing plaintiff's trademarks and "misrepresenting in any way to the public their affiliation, sponsorship or relationship to [p]laintiff and the nature and

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[1] ROT claims that these products were sold only outside the United States, and that it was intended that the buyer would place its own name on the flap prior to resale.

[2] Plaintiff seeks to protect its federally registered "HEWLETT-PACKARD," "HP," "DeskJet," and "DeskWriter" names and trademarks and the "hp" logo (also a name and registered trademark and service mark of plaintiff).

quality or source of origin of the good that they are advertising, promoting, offering for sale, selling, and/or distributing." *Id.* During the TRO hearing, Judge Smith made the following comments concerning Repeat-O-Type's activities:

> I have to say to the defendants, it's been along time since I've seen a more blatant, what I think, copying of somebody else's logo. . . . You have modified the product as far as I can tell. Whether you've modified it to make it better or worse, I don't know. But people, I think, are understandably very likely to be confused. If I were buying that, I would assume that it was authorized in some way by Hewlett-Packard, if not made by Hewlett-Packard.

Pending plaintiff's application for a preliminary injunction, the Court issued a broad TRO preventing the manufacture or disposal of any potentially infringing goods. The seizure authorized by the Order took place on August 28, 1992.

On September 18, 1992, a hearing on the Order to Show Cause regarding the preliminary injunction was held before the Honorable Fern M. Smith. Judge Smith deferred ruling on the application for preliminary injunction and encouraged the parties to undergo further settlement negotiations. Judge Smith also dissolved her previous Order of Seizure and Impound as to items not bearing permanent, non-deletable Hewlett-Packard trademarks and logos. Order of September 29, 1992. The Court continued its TRO and Order of Seizure and Impound as to the remaining items.

The case was subsequently transferred to this Court. Defendants filed supplemental briefing on the pending motion for preliminary injunction. The Court granted plaintiff's motion for a preliminary injunction in an Order dated April 1, 1994.

DISCUSSION

THE STANDARD FOR SUMMARY JUDGMENT

Under Rule 56(c) of the Federal Rules of Civil Procedure, a district court may grant summary judgment when "the pleadings, depositions, answers to interrogatories, and admissions on file, together with affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed.R.Civ.P. 56(c).

Recognizing that summary judgment motions can contribute significantly to the resolution of litigation when there are no factual issues, the Supreme Court and the Ninth Circuit have established the following standards for consideration of such motions: "If the party moving for summary judgment meets its initial burden of identifying for the court those portions of the materials on file that it believes demonstrates the absence of any genuine issues of material fact," the burden of production then shifts so that "the nonmoving party must set forth, by affidavit or as otherwise provided in Rule 56, '*specific facts* showing that there is a genuine issue for trial.'" *T.W. Elec. Serv., Inc. v. Pacific Elec. Contractors Ass'n*, 809 F.2d 626, 630 (9th Cir. 1987) (quoting Fed.R.Civ.P. 56(e) (emphasis added) and citing *Kaiser Cement Corp. v. Fischbach & Moore, Inc.*, 793 F.2d 1100, 1103-04 (9th Cir.), *cert. denied*, 107 S.Ct. 435 (1986) and *Celotex Corp. v. Catrett*, 106 S.Ct. 2548, 2553 (1986)). With respect to these specific facts offered by the non-moving party, the court does not make credibility determinations or weigh conflicting evidence, and is required to draw all inferences in a light most favorable to the non-moving party. *T.W. Elec. Serv.*, 809 F.2d at 630-31 (citing *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 106 S.Ct. 1348, 1356 (1986)).

Rule 56(c) nevertheless requires this Court to enter summary judgment, "after adequate time for discovery and upon motion, against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." *Celotex*, 106 S.Ct. at 2552. The mere existence of a scintilla of evidence in support of the non-moving party's position is insufficient: "[T]here must be evidence on which the jury could reasonably find for the [non-moving party]." *Anderson v. Liberty Lobby, Inc.*, 106 S.Ct. 2505, 2512 (1986). This Court thus applies to either a defendant's or plaintiff's motion for summary judgment the same standard as for a motion for directed verdict: "[W]hether the evidence presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law." *Id.*

TRADEMARK CLAIMS

The Standard for Finding Trademark Infringement Under the Lanham Act

Trademark infringement is established when there is a likelihood of confusion, mistake, or deception among the public as to the source of the parties' goods and/or services or the existence of some sponsorship or affiliation between the parties. 15 U.S.C. § 1114(1). Hewlett-Packard bears the burden of proving by a preponderance of evidence that a likelihood of confusion exists. J. Thomas McCarthy, *McCarthy on Trademarks*, § 23.20[1], at 23-132 (3d ed. 1994) (citing *David Sherman Corp. v. Heublein, Inc.*, 340 F.2d 377 (8th Cir.1965)). There are three elements that must be proven by the plaintiff in a trademark case: (1) ownership by the plaintiff of a valid trademark; (2) use of the mark in commerce by the defendant without the owner's consent; and (3) use of the mark by the defendant in a manner likely to cause confusion, mistake or

deception.[3] The first two elements are not at issue in the case. The question is whether or not the mark was used in a manner likely to cause confusion, mistake, or deception.

The Ninth Circuit has identified a number of factors as relevant to a determination of whether the defendant's use of another's registered mark is likely to cause confusion, mistake or deception. These factors are: (1) strength of the plaintiff's marks; (2) proximity of the goods; (3) similarity of the marks; (4) evidence of actual confusion; (5) marketing channels used; (6) type of goods and the degree of care likely to be exercised by the purchaser; and (7) defendant's intent in selecting the marks; and (8) likelihood of expansion of the product lines. *AMF Inc. v. Sleekcraft Boats*, 599 F.2d 341, 348 (9th Cir. 1979). Every trademark case is unique, however, and must be decided on its own facts, so the relative significance of these factors varies from case to case. *Century 21 Real Estate Corp.*, 846 F.2d 1175, 1179 (9th Cir. 1988).

The three evidentiary methods for proving that a likelihood of confusion exists are: (1) survey evidence; (2) evidence of actual confusion; and/or (3) "argument based on an inference arising from a judicial comparison of the conflicting marks themselves and the context of their use in the marketplace." *McCarthy*, § 23.20[2], at 23-133.

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[3] Thus, unauthorized use of a trademark is not itself sufficient to constitute a violation; the use must be confusing or deceptive as well. Defendants argue that the court at the original hearing misunderstood the law of trademarks. "The court appeared to believe that a trademark was an inherent property right and that the owner of the trademark has a right to prohibit others from using that mark, in much the same manner as an owner of a copyright has the right to prohibit reproduction of the copyrighted material." This Court disagrees with defendant's characterization. The court at the original hearing found likelihood of confusion as well as unauthorized use of the marks.

Analysis

Applying the undisputed facts to these factors, it is clear that a likelihood of confusion, mistake, or deception exists. A comparison of the conflict in the marks themselves and the context of their use in the marketplace establishes trademark infringement. *See McCarthy*, § 23.20[2], at 23-133.

It is undisputed that Repeat-O-Type uses Hewlett-Packard's logos on its products and that Repeat-O-Type packages its products in Hewlett-Packard boxes. Thus, the marks are "similar." The fact that the cartridge has been "modified" by Repeat-O-Type is only indicated in small lettering. In a certain percentage of the products, Repeat-O-Type's name is not even on the product flap. Defendants cite cases indicating that a product may mention the name of another product in its packaging. In *Prestonettes, Inc. v. Coty*, 264 U.S. 359 (1924), for example, the Supreme Court held that a manufacturer of compacts that used Coty's face powder was allowed to use the Coty name in its packaging. "When the mark is used in such a way that does not deceive the public we see no such sanctity in the word as to prevent its being used to tell the truth. It is not taboo." *Id.* at 368. This reasoning may suggest that Repeat-O-Type should be allowed to mention on its packaging that its product is modified from an original Hewlett-Packard cartridge. Repeat-O-Type, however, has done much more than that. Repeat-O-Type has used Hewlett-Packard's own logos and has packaged its cartridge in a Hewlett-Packard box, thus easily misleading consumers into thinking it is a Hewlett-Packard product.

Furthermore, Hewlett-Packard's registered trademarks are very strong marks. As Repeat-O-Type's products can only be used with Hewlett-Packard's printers, there is also proximity of Hewlett-Packard and Repeat-O-Type's goods. Thus, these factors support a finding of likelihood of confusion.

Hewlett-Packard has provided some evidence of "actual confusion." Hewlett-Packard says that although it does not track evidence of confusion by customers, the company has encountered confusion by customers who have telephoned and written letters to Hewlett-Packard thinking that Hewlett-Packard is the source of or sponsor of the Repeat-O-Type products. Hewlett-Packard has submitted a letter from a customer who believed that Repeat-O-Type's refill ink was an Hewlett-Packard product. On the other hand, Repeat-O-Type and Fred Keen have provided letters from consumers saying that they were not confused.

Evidence or lack of evidence of actual confusion is relevant, but is not determinative of whether there is a likelihood of confusion. *See, e.g., E. & J. Gallo Winery v. Gallo Cattle Co.*, 967 F.2d 1280, 1292 (9th Cir. 1992). In this case, in which Hewlett-Packard was granted a TRO and preliminary injunction against Repeat-O-Type soon after Repeat-O-Type began selling its products, evidence of actual confusion is less likely to exist. Thus, this factor weighs less heavily than in many cases.

The marketing channels used by Repeat-O-Type are similar to those used by Hewlett-Packard, further contributing to a likelihood of confusion. Additionally, the cost of the print cartridges is small compared to the cost of the printer; this suggests that less care is put into the cartridge purchasing decision and that buyers will be confused by Repeat-O-Type's products. Finally, although Hewlett-Packard need not demonstrate that Repeat-O-Type intended to deceive the public for it to prevail, *see E. & J. Gallo Winery v. Gallo Cattle Co.*, 967 F.2d 1280, 1293 (9th Cir. 1992), Repeat-O-Type's intentional use of Hewlett-Packard's mark suggests that Repeat-O-Type intended the public to believe that Hewlett-Packard manufactured, or at least authorized and approved, Repeat-O-Type's product. *See AMF*, 599 F.2d at 354.

The undisputed facts presented to the Court clearly establish that Hewlett-Packard has met its burden of proof on its claim that defendants have infringed Hewlett-Packard's federally registered trademarks. Therefore, Hewlett-Packard is entitled to summary judgment regarding defendants Repeat-O-Type and Fred Keen's liability on the trademark claims.

The Remedy

Hewlett-Packard has asked for a jury trial, compensatory damages and punitive damages. Although liability has been established, the issue of damages remains to be resolved. Hewlett-Packard has also requested a permanent injunction. The scope of the injunction remains to be resolved.

PATENT CLAIMS

Introduction

In addition to trademark infringement, Hewlett-Packard claims that Repeat-O-Type has infringed its patents. As Hewlett-Packard would have it, "The single question of law presented by this motion is whether the modification of plaintiff Hewlett-Packard Company ("Hewlett-Packard") ink-jet cartridges by Repeat-O-Type ("ROT") is: (1) it is of worn or spent components, *and* (b) the modifications are to keep the cartridges in use for its life as intended by the patent owner; or (2) an impermissible reconstruction, and thus an infringement of Hewlett-Packard's patents." Hewlett-Packard argues that Repeat-O-Type modifies Hewlett-Packard's product *before* there are any worn or spent parts; therefore, the modification cannot be permissible "repair" and so must be impermissible "reconstruction."

The Court does not agree with Hewlett-Packard's characterization of the issue. "Repair" versus "Reconstruction"

is not a means of establishing infringement of patents. Rather, the doctrine of repair is an exception to an otherwise established patent infringement. In other words, Hewlett-Packard must first establish that a patent infringement exists before the question whether the product is a permissible repair is reached.

Repair Versus Reconstruction

A patent gives the owner of the patent the right to exclude others from making, selling, or using an item within the scope of that patent. As Hewlett-Packard concedes, a lawful purchaser of a product (which Repeat-O-Type is) has the right to use or resell the lawfully purchased cartridge. *See United States v. Univis Lens Co.*, 316 U.S. 241, 250 (1942). This basic principle is known as the "first sale doctrine." The "permissible repair" doctrine permits a purchaser to repair or replace an unpatented element of a patented combination to "preserve its fitness for use so far as may be affected by wear or breakage." *Leeds & Catlin Co. v. Victor Talking Machine Co.*, 213 U.S. 325, 336 (1909), *overruled on other grounds*, *Mercoid Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661, 668 (1944).

Hewlett-Packard terms the "permissible repair" doctrine a limitation on a purchaser's ability to use or resell a product. In the Court's opinion, the doctrine instead provides an exception to the general ban on a purchaser's ability to make a product. That is, a purchaser can *use or resell* a product without it being a violation of the creator's patent rights. However, a purchaser normally cannot *remake* the same product without it being a violation of the creator's patent rights. Courts have created a "permissible repair" exception to this principle, however. When a patent owner has a combination patent on a product which is composed of a number of unpatented elements, it is permissible for the purchaser or another to "fix" or "make" certain component parts without violating the patent owner's rights. For example, in *Aro Mfg. Co. v. Convertible Top Replacement*

Co., 365 U.S. 336, 345-46 (1961), the Court held that it did not violate a patent owner's rights for a defendant to provide replacement fabric for a convertible top.

In the instant case, Hewlett-Packard does not have a combination patent on its Stanley and Kukla cartridges--only on certain elements of the cartridges. Thus, by changing certain nonpatented elements of the cartridges, Repeat-O-Type is not making or remaking anything that Hewlett-Packard has a patent on.

> The law entitles the purchasers of a patented apparatus to repair and replace worn or broken parts, but replacement that amounts to a second creation of the patented entity is not permissible."

Lummus Industries, Inc. v. D.M. & E. Corp., 862 F.2d 267, 272 (quoting *Aro*, 365 U.S. at 345-46). Hewlett-Packard has not presented evidence that Repeat-O-Type has recreated anything that Hewlett-Packard has a patent on; in fact, what Hewlett-Packard seems to be complaining about is that Repeat-O-Type is making an entirely new product, not that Repeat-O-Type is making a component that Hewlett-Packard has a patent on.

The Scope of Hewlett-Packard's Patent Rights

For the above reasons, the Court does not find Hewlett-Packard's argument that the dispositive issue is "repair-versus-reconstruction" availing. As a purchaser, Repeat-O-Type cannot be liable for patent infringement for using or selling Hewlett-Packard's products. Therefore, Repeat-O-Type can only be liable for making a product that is patented by Hewlett-Packard. Hewlett-Packard has not established that Repeat-O-Type has made a product that Hewlett-Packard has a patent one.

It is important to note that Hewlett-Packard's patents are not for the Stanley and Kukla cartridges themselves; they are for certain elements which are *in* the cartridges. Specifically, Hewlett-Packard claims that the Stanley and Kukla cartridges read on Hewlett-Packard's '811 patent and '294 patent, and that Repeat-O-Type's modifications infringe these patents.

Patent '811 is for a "thermal ink jet pen having a feedtube with improved sizing and operational with a minimum of depriming." The two claims for this patent are "in combination, an ink jet pen having an ink reservoir and an ink jet thin film printhead and a standpipe interconnecting said reservoir and said printhead and having an air accumulating section adjacent said reservoir, said printhead has an orifice plate therein with orifii openings . . ." and "a thermal ink jet pen including an ink reservoir therein, and a thin film printhead interconnected to said reservoir by way of a standpipe . . ."

Components of the Stanley inkjet cartridge are covered by Hewlett-Packard Patent '811, claim 2. Contrary to Hewlett-Packard's assertion, however, replacing the ink in the ink reservoir does not constitute infringement, because ink is not a patented/material element of claim 2, and Hewlett-Packard does not have a combination patent on the cartridge itself. In fact, ink does not even appear to be an "element" of claim 2.[4] Therefore, Repeat-O-Type's actions in replacing the ink in the Stanley inkjet cartridge do not constitute patent infringement. Hewlett-Packard cites no case for the proposition that changing a non-patented component that "relates to" a claimed element of a patented component constitutes impermissible "reconstruction."

Patent '294 is for a "thermal ink jet printhead assembly employing beam lead interconnect circuit." It contains three

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[4] The Court does not accept HP's argument that a court should read into the claim that ink is an "implied" element of the claim.

claims: "An ink jet printhead assembly adapted for insertion into a printhead carriage, said assembly including in combination: (a) a printhead substrate . . . (b) a plurality of thin conductors disposed atop said substrate and electrically connected to a plurality of transducer elements therein, and (c) a beam lead interconnect circuit having a plurality of beam leads bonded, respectively, to said plurality of thin conductors . . ." (2) the assembly defined in claim 1 wherein said beam leads are resiliently extended away from said chosen surface of said header member . . . (3) An ink jet pen including in combination: (a) a pen body housing having an ink storage compartment therein and an ink flow port adjacent one surface thereof and further having outer surfaces which are contoured to mate with adjacent surfaces of a pen carriage member, (b) a thin film printhead . . ., (c) a flexible electrical circuit member . . ." Ink is not an element of the patent.

Components of the Stanley and Kukla print cartridges are probably covered by claim 3 of Hewlett-Packard patent '294. Even if the same cartridges, if made by someone other than Hewlett-Packard without permission, would not literally infringe '294, they might well infringe under the Doctrine of Equivalents, provided that the cartridges work the same way to perform substantially the same function to achieve the same result. *See Jonsson v. Stanley Works*, 903 F.2d 812, 821 (Fed.Cir. 1990). However, even if various components of the cartridges are covered by the '294 patent, the cap is not a patented element of claim 3. Thus, Repeat-O-Type's breaking the seal of the cap and replacing the cap with shims so that the cap could be removed and the cartridge refilled by the consumer, does not constitute impermissible "reconstruction."

For these reasons, Hewlett-Packard has not presented evidence sufficient to create a genuine issue of material fact that Repeat-O-Type has infringed its patents. Defendants Repeat-O-

Type and Fred Keen are entitled to summary judgment on the patent claims.

CONCLUSION

For the above reasons, the Court grants plaintiff partial summary judgment on the issue of liability for the trademark claims. The Court grants defendants' motion for summary judgment on the patent claims.[5] Defendants' request for Rule 11 sanctions is denied. Plaintiff Hewlett-Packard is to submit a proposed form of injunction by February 24, 1995. Plaintiff is also to provide a copy of that proposal by February 24, 1995 to defendants. Defendants may submit comments on the proposal to the Court by March 10, 1995.

IT IS SO ORDERED.

Dated: February 7, 1997

/s/ D. Lowell Jensen
D. Lowell Jensen
United States District Judge

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[5] Because the Court grants defendants' motion for summary judgment on the patent claims, the Court denies plaintiff's motion for summary judgment on the patent claims.